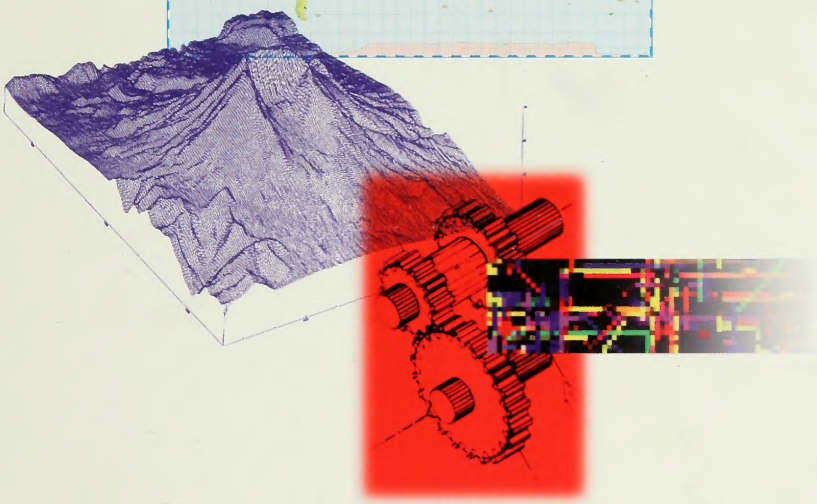
For the Love of Learning

Report of the Royal Commission on Learning



Volume II

Learning: Our Vision for Schools

Ontario

FOR THE LOVE OF LEARNING

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Report of the Royal Commission on Learning

Volume II Learning: Our Vision for Schools

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Royal Commission on Learning
Commission royale sur l'éducation
Ontario

Co-Chairs / Coprésidents
Monique Bégin - Gerald L. Caplan
Commissioners / Membres de la commission
Manisha Bharti - Avis E. Glaze - Dennis J. Murphy

December 1994

The Honourable Dave Cooke
Minister of Education and Training

Dear Mr. Minister:

It is with a sense of great hope for the future of the young people of Ontario that we respectfully submit to you the Final Report of the Royal Commission on Learning.

Very sincerely yours,

Monique Bégin
Co-chair

Gerald Caplan
Co-chair

Manisha Bharti
Commissioner

Avis Glaze
Commissioner

Dennis Murphy
Commissioner

Raf Di Cecco
Executive Director

101 Bloor Street West / 13th Floor / Toronto / Ontario M5S 1P7
Telephone (416) 325-2707 / Fax (416) 325-2956 / TOLL-FREE 1-800-565-0861
101, rue Bloor ouest / 13e étage / Toronto (Ontario) M5S 1P7
Téléphone (416) 325-2707 / Télécopieur (416) 325-2956 / Sans frais 1-800-565-0861

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Monique Bégin
Gerald Caplan
Manisha Bharti
Avis E. Glaze
Dennis J. Murphy

Introduction to Volume II

Volume II describes our priorities for learning, from early childhood through secondary school. The chapters include discussions of curriculum content and organization, supports for learning, and learning assessment.

In this volume, we describe a "curriculum for literacies," based on the idea and the ideal that schools can effectively lead most children and youth to a high level of skill, and a deep level of comprehension, across a variety of subject areas. A key recommendation occurs in Chapter 7: full-time education should be universally available for three- to five-year-olds. We see this as one of the four engines that can transform an adequate educational system to a superior one.

We define the curriculum, broadly, as an educational program beginning as an option at age 3, and compulsory at age 6. It is a program whose goals and content must be clear to teachers and parents, whose mutually reinforcing efforts on behalf of young learners are the absolutely essential underpinnings of this long-term learning plan. That is why, throughout the chapters on the education of pre-schoolers, children, and adolescents, we emphasize that clearly stated, written descriptions of what students are expected to learn must be available to parents as well as to teachers. We believe that the curriculum – what children should be learning, and at what level of mastery – must be clear to parents, so they can help at home, in appropriate ways, and so that their dialogue with teachers on the subject of their child's progress is that of well-informed, well-respected, and equally powerful partners. While we believe there is no substitute for direct parent-teacher communication in respect of students, we also think it is important – and have built relevant suggestions on the subject into our discussion – that student achievement be monitored regularly and publicly, so that the community as a whole can be informed about the achievements of its young, and the effectiveness of its schools.

If it is to help almost all students reach an acceptable level of understanding and performance, a curriculum must have considerable flexibility to accommodate individual differences in the rate at which skills, knowledge, and understanding are acquired. Educators are familiar with the argument that we should make knowledge and achievement the constant, and time the variable, instead of the reverse; that is, we should have similarly high goals for students, and let them achieve them at their own pace, instead of insisting that everyone learn whatever they can in a set period of time.

Despite the familiarity of the argument, very few schools really allow flexibility in learning time. Every student is expected to learn enough between September and June – not too little and not too much – to be in the same "starting" position the following September. While it is understandable that neither parents nor bureaucrats are happy with extremely wide and non-standard fluctuations in learning time, we propose that much more thought be given to ways of helping students move faster, to avoid boredom, and to intensify targeted help for students having difficulties so they do not fall far behind. Such help, especially when it comes early in the child's career as a student, has the potential of reducing later failures, which are extremely costly to the individual and to society, in the short and the long term. We are aware that this kind of intense, targeted, "just-in-time" help is difficult to provide: it is labour intensive, hence expensive; but it is important to remember that the help that is given later, through special education and remediation programs, is also costly and and less likely to be effective.

As well, the immediate interventions require considerable flexibility on the part of the school, the student, and the family, all of whom have to manage schedules so that the student is not absent from the regular classroom for any significant time, and can keep moving ahead with peers even while getting help. However, this flexibility is perhaps more a matter of attitude than schedule. The reason why such solutions are not already implemented in most schools is possibly because they require both more flexible thinking and a

observation

A student needs a teacher at school who has a continuing concern for her progress as long as she attends the school.

Responsibility for supporting the education of young people belongs to us all, whether or not we have children in school.

different way of distributing scarce resources – from both inside and outside the school system. But the difficulty of realizing them does not mean that these solutions can be ignored. Everyone must make a much greater effort to facilitate them.

The following chapters also suggest that educators must look at their students' progress over time, in the same way parents do: not just a year at a time, but continuously. We believe that a student needs a teacher at school who has a continuing concern for her progress as long as she attends the school. We are recommending that a kind of "case management" be exercised on behalf of every student – moving from a more administrative to a more "hands-on" style, as students grow into adolescence and shift into "rotary" systems where contact with any one teacher is normally quite limited. With the transition to adolescence, the role of steward or advisor takes on an educational and career-planning emphasis, with student, teacher-advisor, and parents regularly reviewing the student's experience, progress, and goals. We also suggest that parents and educators be encouraged to understand curriculum as a continuum from pre-school to post-secondary education and training. In fact, our discussion of curriculum begins, not at Grade 1, but at birth.

Finally, many of our suggestions and recommendations for a strong curriculum speak to the interdependence between schools and other learning resources. There is no question that schools do not have a monopoly on knowledge, and that teachers cannot be human computers. Nor can they be expected to be artists, scientists, business people, technicians, physicians, and social workers. But students need exposure to others in those roles and more, in order to define the goals they want to work toward, and to appreciate the link between curriculum and their future. Thus we have a great deal to say about community-based career awareness and more formal career planning and education. Parents and teachers are the most essential "life supports" in the education of the young, but, ultimately, a solid support system rests on a strong sense of community responsibility, which leads to a real sharing of resources devoted to the education of young people. We realize that what we are suggesting – a real sharing of the curriculum between educators and others – is a giant step beyond the occasional inter-agency collaboration or co-operative education program, and the like. However, we are convinced that it must happen. A solid curriculum rests on a belief by the whole of society that responsibility for supporting the education of young people belongs to us all, whether or not we have children in school. If that belief is to be acted on, government must be a facilitator, not a barrier, for concerted, not disparate, efforts.

We describe a curriculum that is rich, challenging, and inclusive, one that offers the possibility of developing all the talent we have and need in Ontario. But without dedicated and well-educated teachers, dedicated and well-informed parents, and a commitment from local communities and government to define themselves as resources for the learners who are our future, the best curriculum will be worth no more than the paper on which it is printed.

Key issues

The major issues around which the debate about education and educational reform centres were discussed earlier in this report. They include quality, focus, fairness, openness, and efficiency. All these are closely related to curriculum.

The central questions are how to ensure comprehensiveness and relevance while avoiding overloading the curriculum; how to make the curriculum responsive to new social concerns, such as the environment, health, etc., without vitiating its long-term purpose in the transmission of culture and values; how to provide for a diversity of offerings to meet the interests of diverse clienteles while ensuring coherence and focus.[1]

Curriculum quality

Quality questions are curriculum questions: Are students learning enough, learning the right things, learning them at the right time, or learning them well enough? Our considered response is that the key quality issue is embodied in the last of these, the "well enough" issue. While evidence from some of the national and international test comparisons suggests that our students could be learning more,[2] it suggests, across several subject areas, that our students could and should be learning better: they should have less superficial knowledge and understanding, and be better able to synthesize diverse information, infer from and extend information, and generalize and transfer knowledge from one context to another. Too many students cannot apply what they have "learned," and this shows in their relative weakness when dealing with more complex components of measures of literacy and numeracy. In other words, it is not as much a matter of more quantity as it is of quality – doing what is most important, and doing it thoroughly.

Curriculum focus

Another major issue around which concern and criticism of the educational system cluster is that of focus and coherence. Applied to curriculum, this is expressed as a fear that schools are "all over the place," are trying to do too much, and, as a consequence, are doing too little really well. This is what is usually meant by the "overcrowded" curriculum, and often leads to the "back to the basics" call. This concern is most often expressed about the elementary school curriculum.

Is the teaching and learning of foundation skills being slighted, or are traditional core subjects being pushed aside by a multitude of other subjects that are part of the elementary school curriculum? In fact, most of the subjects presently prescribed have been part of the compulsory curriculum for a very long time – such subjects as language, math, science, music, history, French (or Anglais), geography, and physical education.

There are a few that were added more recently: the arts now include dance; and technology and business studies were not always taught in the earlier grades. And within such traditional subject areas as physical and health education, for example, additional topics have been added: AIDS education is now part of the health curriculum because the disease is so dangerous and the need for education for prevention is so urgent. Curriculum, like many other areas that are important and in which careers are spent, expands – it never shrinks. New topics are added, but there is never agreement on what no longer need be taught.

Teachers are also concerned that having to deal with a number of topics in a finite period tends to move them toward superficial coverage and over-dependence on methods that do not permit students to explore, question, try alternative solutions, and, in general, reach a real understanding, rather than a superficial familiarity useful only for short-term recall. It has often been said that it is too easy for curriculum to become a mile wide and an inch deep. Educational researchers looking at comparative international success rates observe that in countries where students excel in mathematics, for example, the math curriculum tends to be less extensive and more intensive, so that material is learned very well the first time, is thoroughly comprehended, not merely memorized, and does not have to be relearned over and over again.

While teachers and parents may feel that the curriculum is overcrowded, in our opinion the array of subjects included in *The Common Curriculum* does not, by itself, make this inevitable. If course guidelines seem to mandate too much content, and do not suggest to teachers how to condense or integrate, then the curriculum will be overcrowded.

Teachers need a curriculum which is well defined and clear, with sequences of learner outcomes by subject area, illustrated by topics with examples, to ensure consistency and cumulative learning. Teachers need guides on taking apart a well-sequenced and cumulative curriculum, and on putting it back together.

observation

It is essential that subjects and topics form some kind of meaningful whole or pattern, both at the level of an individual course, made up of component parts, and at the level of the program, made up of many courses over a year or over several years.

We believe that well-written curriculum guidelines and support documents can show teachers how to enrich without adding on – how, in effect, to accomplish more than one thing at a time. For example, teachers may perceive co-operative, small-group learning, which is a teaching and learning technique; anti-racist education, which is a focus on equity in the curriculum; and mastery of a body of knowledge – for example, the pre-European contact history of Canada – as three different teaching "assignments." In fact, Canadian history is the content, and the topic naturally lends itself to informed discussions of culture, race, and racism in history. The co-operative small group is part of the process.

If the classroom is racially heterogeneous, and the small groups are structured to reflect that mix, if the teacher understands and has made sure that students understand the prerequisites for successful small-group work, the exercise will automatically become a piece of anti-racist education with a high potential for decreasing intolerance and barriers between groups. Such examples are an important part of curriculum support materials, and every effort should be made to facilitate teachers' knowledge of, and competence in, this kind of process/product curricular integration.

We think the real issue is not curriculum crowding but curriculum clarity. Both data and anecdotal evidence suggest that students are not overburdened – generally, the amount of homework they have is moderate to low by international standards. Their agendas do not appear to be overcrowded, though their teachers' well may be. We believe there is sufficient time in students' days and weeks for physical exercise and for learning the essentials of health, for example, without cutting into the time needed for the language, mathematics, or the arts and sciences curricula. We also think that the fitness and health curriculum could be delivered by people from the municipal recreation department, the public health department, and other community agencies, and that teachers would benefit from being able to put more time and focused thought into planning and delivering the academic curriculum.

It is essential that subjects and topics form some kind of meaningful whole or pattern, both at the level of an individual course, made up of component parts, and at the level of the program, made up of many courses over a year or over several years.

Fairness and openness

People ask about the curriculum: Is it constructed so that people with different strengths and paths to learning are equally well accommodated? Does it shut out or give greater advantage to certain groups of people or certain types of learners? Does it recognize and honour the cultures, languages, and histories of the school's students and their families, and of this country?

Phrases such as a "representative" or "pluralistic" curriculum are used to reflect this concern for fairness and inclusiveness. An authentic curriculum is inclusive, and it is also global in that it reflects a broad range of experiences and perspectives.[3]

A science curriculum, for example, which acknowledges only the contributions to science of men of European heritage is incomplete and therefore incorrect, leaving female and minority-group learners at a disadvantage. A curriculum on the history of railway building in Canada that does not reflect the role and the treatment of Chinese workers is also incomplete and incorrect, distorting what really happened. Similarly, there is every reason to ensure that the curriculum reflects the global village of which Ontario is a part. Over the course of a school career, students should have access to quality literature – not just Canadian, American, British, and French, but that of many other countries.

Inclusiveness relates not only to curriculum per se, but to the issue of openness. In speaking to the Commission, many people made the point that they find the education system a closed one; that, although the public funds education, the public is not allowed "in." The culture of schools typically defines the curriculum as exclusively the province of educa-

tors, which parents and others may, at best, observe; they may make suggestions, but not seriously influence planning or delivery. Not surprisingly, parents often experience this as conflicting with their understanding of public education as democratic and inclusive, as well as with the schools' frequent assurances about the value of parental involvement for children's achievement.

Furthermore, interpreting the whole curriculum as necessarily the exclusive property of educators means that one of the most promising ways of "uncrowding" it is not pursued. On the one hand, teachers complain of being overburdened by having to cover a wide variety of topics and concerns that are essentially non-academic: drug education, for example, or health and safety. On the other hand, they cannot (or they believe they cannot) delegate some of these responsibilities to non-teachers.

We suggest that, on the contrary, there are many things schools and teachers should not necessarily do by themselves, or do alone, but which should and could still be available to students. If teachers are to focus on academic learning and on teaching so that students understand, if teachers are to develop truly literate learners, they must not be diverted by a multitude of important but non-academic issues. Teachers must, most certainly, care for and about their students as persons; if they do not, or if they seem not to, their effectiveness as teachers is extremely limited. Moreover, a student with serious personal problems that are not dealt with will not only be unable to learn well, but may prevent others from learning by acting disruptively or diverting the teacher's attention.

Fortunately, in specific curricular, as well as extra-curricular areas, there are others who might be available, whose training might be equally or even more suitable, and who might appropriately take on tasks that involve teaching, but need not directly involve teachers. While the potential of community alliances is discussed more fully in a later chapter of this report, its specific application to the curriculum is explored in this section. We refer to a few specific areas of the traditional curriculum that could be delivered by teachers, among others, but not necessarily or principally by teachers. We suggest that community alliances for delivering the broader curriculum can help schools become more focused and more inclusive, open, and responsive. Examples include health and fitness curricula, social skills curricula such as anti-violence and "peacemaker" programs, arts activities, and career education.

Efficiency

In Ontario, curriculum writing has been more decentralized than in other provinces. Like many of those we heard from, we see little benefit in the current duplication of effort that exists in developing curriculum that way. Local boards, as well as some schools, are expected to do detailed curriculum planning and writing, in the absence of more centralized production of possible course units and sequences. We believe this function can be efficiently centralized, and done in a way that facilitates teachers' work, allowing them to focus on teaching without constraining their professional development or creativity.

We recognize the validity of recent attempts by boards and the Ministry of Education and Training to share the work of each board among all boards (e.g., the Curriculum Clearing House), and encourage continuation of that effort, as a result of which many valuable resources have already been developed. But we think the time has come to centralize the development of new curriculum. We expect that this would lead to the use of fewer teacher resources within school boards for responsibilities that take them out of schools and classrooms.

In saying this, we do not intend to prohibit local efforts when boards or schools feel some compelling reason to make them; and the local curriculum option we propose could provide such a reason in some cases. But we do propose that the documents needed to supplement *The Common Curriculum* be developed centrally and disseminat-

ed to all boards and schools, and that the same rule apply to curriculum for the early years and for the specialization years.

In Chapter 5 (on learning) and in this volume, we make the case that the curriculum in Ontario's schools must be representative, inclusive, and academically honest and ambitious. In a system like the one we suggest, in which curriculum is developed provincially, the Ministry of Education and Training has a strong responsibility to make certain this focus is integrated into future curriculum development.

In 1993, the Legislature of Ontario passed Bill 21; among other provisions, it required school boards to establish anti-racism and ethno-cultural equity plans that would focus on such things as curriculum; student languages; guidance and counselling; and student evaluation, assessment, and placement. This means that each school board must develop policies in each area. We support the development of such policies, but are concerned about duplication in the preparation of curriculum and other materials and procedures that will result. We believe that curricular changes necessary to implement such new policies should and can be developed once, centrally, rather than a hundred times.

We note that, in his report on race relations, Stephen Lewis made similar suggestions. He recommended, for example, that the new Assistant Deputy Minister of Education for Anti-racism, Equity and Access "establish a strong monitoring mechanism to follow-up the implementation of multicultural and anti-racism policies in the School Boards of Ontario." He also suggested that the province's leaders "continue to pursue, with unrelenting tenacity, the revision of curriculum at every level of education, so that it fully reflects the profound multicultural changes in Ontario society."[4] We agree, and want to emphasize our strong belief that as a priority in its new responsibility for developing curriculum, the Ministry must ensure that all curriculum developed in Ontario is anti-racist, gender equitable, and representative of all people of Ontario.

In the section of this report dealing with governance and regulation of the educational system, we recommend a procedure for the centralized creation of curriculum. It is our firm expectation that whoever the Ministry may appoint to carry out any particular piece of curriculum development will be able to draw on the rich human resources in curriculum that exist in Ontario's school system. This would ensure continued sensitivity to regional differences and to the needs of the francophone and Roman Catholic components of the school system. Their interests will be represented by the existing French-language team as well as the Roman Catholic education policy and program team whose creation we recommend.

When centralization of curriculum is discussed currently, the discussion often embraces the idea of a national curriculum. Formal education in Canada is and always has been governed provincially (and even aboriginal students on reserves follow provincial curricula). But the Commission heard from many people who advocate a national curriculum.

Over the last two years, the first national assessment program, organized by the Council of Ministers of Education, has been established, and we have begun to see interprovincial co-operation in developing curriculum at the regional level. Whether this interprovincial co-operation will become a driving force in creating a national curriculum remains to be seen; certainly, it seems to have been possible to reach agreement on testing in spite of the lack of a uniform curriculum.

Whether or not it is possible for Canada to have a national curriculum is probably more a political than an educational question. At the practical, pedagogical level, it is certainly plausible. We do not expect that fundamental skills and core curricula would vary greatly from province to province. We believe that the public would support an interprovincial initiative to create a framework for a national curriculum, specifying expected outcomes for elementary and secondary education across Canada.

"The problems and challenges facing Ontario schools are national in scope, and they require Canada-wide responses. Yet we are probably the only major country in the world that does not have a national agency responsible for addressing our common, nation-wide concerns in schooling."

Council of Ontario Universities

voices

At the same time, we do not believe that a national curriculum means that students would learn more – only that there might be a greater sense of consistency and unified purpose in education. The quality of education and learning for Ontario's students does not depend on greater centralization at the national level.

In its 1992 report, Newfoundland's Royal Commission on Education[5] recommended that an examination be made of

> the possibility of introducing a federal presence in education; in particular, the creation of a national office of education. Such an agency would address national goals for schooling, establish national standards for the collection of educational data, conduct national education assessments, and serve as a centre for the information on education research and improvements.

Unlike that Commission, we do not want to promote a constitutional debate about a move that might not do much to transform the quality of education in our province. But we applaud the intention of the Council of Ministers of Education to explore the possibility further. Such discussions would be welcomed by people who want greater consistency in educational goals and standards across Canada; we also recognize that some national activities could offer economies of scale.

Strategies for improvement: A learning system that focuses on the learner and on literacies

We are convinced that a learning system, emphasizing serious learning and more of it, is needed; and that it must really be a system, with a strong focus and purpose and strongly linked component parts. The curriculum should embody that focus and those goals, rather than allowing content unrelated to learning and literacies to "crowd" the curriculum.

How systematic is what we have now? To what extent does it focus on learners and learning? If we define sophisticated literacies – not elementary knowledge and understanding of subjects – as our overall focus, how would the system have to change?

The system

Whether we choose to call formal education in Ontario a learning system, an education system, or a school system, we must ask whether it is a system at all. A system is a whole, not a collection of unconnected parts; it has purposes and goals that are consistent throughout. Do we have a system in education? The recent reorganization of three governmental departments – education, colleges and universities, and skills development – into the Ministry of Education and Training, makes it clear that such a system is the goal. But reorganization by itself does not a system make.

Formal education begins, as an option, at age 4; it is compulsory from age 6 to 16; and must be provided free to anyone through age 21. As well, an increasing number of adult students are also being educated in the public schools, at the discretion of local boards.

Thus there is, if not a cradle-to-grave provision for free public education, at least a continuum that occupies many years of the youth of all of our citizens, and that reaches out to adults.

Whether all parts of that system mesh is another question. Presumably, if we had clear agreement and indicators about what all adults in our society need to know, our universal education system would rest on a continuum of knowledge and skills learned in sequence. While there is no such explicit continuum, the formal curriculum of schools does reflect an assumed agreement about what should be learned, and when. Although the connections are not always clear or smooth, definite principles underlie what children and youth are expected to know and to do, based on an assumption that learning is cumulative.

But this assumed continuum is also characterized by transition points, and it is around these points that systemic continuity falters, that disconnectedness and disagreement about program are most likely to occur. These transition

points are as follows: the transition to school (at what age? teaching what content?); the transition to adolescence (what must change at school because of changes in the situation of the learners?); and the transition to post-secondary education and work (how should education be similar or different for the entire range of students who will reach this point? to what extent should the next stage of life affect the curriculum of secondary school?). In order to make a system of the whole, or a whole of the system, there must be, first, a focus on the learner; and second, a focus on literacies, from the beginning to the end of formal schooling.

The learner

In the last few years, educators have attempted to define curriculum in terms of results rather than content: the focus has moved from what is taught to what is learned. We are aware that there are pitfalls to this approach (which may convey an unrealistically linear view of learning), and that no single strategy can create perfect social consensus about what schools and education should be and how we evaluate their success. Nonetheless, we believe that the general idea of measuring the quality of the curriculum – by looking at its effects on what students learn – is sound. It gives momentum to the push for more and better student assessment, which we think is essentially healthy in a province that has collected very little information on student achievement (see Chapter 11). It can also contribute to a better-articulated learning system, one in which each level builds clearly on the one before it. Moreover, it challenges the practice of thinking of curriculum as something to be delivered in specified, uniform time units (e.g., a course is 110 hours in secondary school, no matter what the subject or who the students) rather than as bodies of knowledge and skills to be acquired.

As well, if we are interested in knowing what students have learned, rather than simply what they have been taught, our interest can encompass other learning experiences, outside the classroom. The system can recognize what we all know and appreciate – that learning happens in every setting, and that good learning is generalized from one situation to another.

A curriculum for literacies

In our opinion, nothing matters more to society or to individuals than learning. If schools are truly learning communities, schooling, by definition, will be enriching, challenging, and intellectually rewarding.

Reading, writing, and communicating are essential tools across all knowledge domains, and underlie mathematical, scientific, technological, and artistic literacy. But if education is meant to help learners become capable of understanding and adding to an array of knowledge that will enrich and improve their lives and the life of their communities, the fundamental need is for more than basic literacy. It is also for advanced, high-level literacies that enable people to continue to learn, not to be easily stuck when a new problem comes along.

We believe that most parents and members of the public want secondary school graduates to be "well educated," a term that includes both the notion of being well informed and of having intellectual skills. Being well informed signifies being conversant with bodies of knowledge – being well informed about literature, or art, or science; having intellectual skills suggests knowing how to organize information, frame questions, test an argument, generalize from specifics, and relate knowledge in one domain to that in another. Being well informed in an area *and* having intellectual skills to apply to that information is what we mean by literacies.

Whether the topic is literature, painting, science, history, or mathematics, the literate person brings certain skills to it, including the ability to read efficiently and accurately. Although "reading" a painting or an experiment is different from reading a poem or a play, it is still reading. As well, literate persons express themselves accurately and not clumsily in writing, speaking, or in other forms of communica-

→ Literacy is understood as being able to speak, read, write, and reason and to have sufficient knowledge of history, science, literature, art, and, increasingly, technology, to be able to hold or follow a conversation or argument that depends on prior exposure to facts and ideas.

tion they may choose, including music, languages, or science.

Broadly defined, literacy is understood as being able to speak, read, write, and reason and to have sufficient knowledge of history, science, literature, art, and, increasingly, technology, to be able to hold or follow a conversation or argument that depends on prior exposure to facts and ideas. According to this definition, a person who could not write a letter that was both expressive and grammatically correct, or could not follow a science article in a newspaper and note whether it included unsupported assertions, or who could not understand a layperson's book about computers, or who did not know who Aristotle or Mahatma Ghandi was, or who did not know how to use a reference library or, increasingly, a computer, could not be called fully literate.

The common meaning of "literacy" is much narrower and more specific: it is learning to read and write, the first task of schooling, beginning in Grade 1. Educators now know that pre-school and kindergarten experiences, as well as the learning environment of a child's home, have strong effects on the quality and speed with which basic literacy is acquired in the primary grades, and this knowledge relates very directly to our recommendation concerning early childhood education. And much is known about how to ensure that all children can learn to read and write in those years.

Many parents, respresentatives of business, and other bodies told the Commission that they were concerned about whether Ontario's students are achieving satisfactory rates of literacy; many of their briefs focused on the early years of schooling, on basic literacy, and on the quantity and quality of instruction young children receive in reading and writing. There is wide consensus that the early years of school are critical to later success, and that literacy is the key to the whole. The matter can be more complex for children who come to school with a first language that is not the language of schooling, but the necessity of developing strong basic literacy skills, early, remains unchanged.

Basic literacy, achieved early, is the foundation for the higher literacies. Building a strong, early foundation will result in an upgraded curriculum at all grade levels, and in students who make greater progress in learning, in learning how to learn, and even, we fervently hope, in learning to love learning. As a result, their expectations and those of their teachers and parents would rise, and students' attainment levels with them. A stronger foundation in early literacy would also diminish the learning disadvantages some children bring with them to school, and is one of the best strategies for ensuring that the curriculum is built on standards that are appropriately high and attainable for most students. Ultimately, this is the best way to prevent later categorization by class, colour, and national origin, and to build an excellent and equitable education system.

We agree that literacy is the appropriate focus, as long as it does not stop at "basic" literacy. The literacy we believe children and adults need, and that schools should recognize as their primary goal, goes beyond basic to what we call the higher-level "literacies." Children must, of course, learn how to translate print into speech, and speech into print, and they must be able to demonstrate that they can do so.

But literacy goes beyond simple decoding, not only in language, but in all subjects. Real literacy means being able to go beyond factual recall, to the ability to be critical about what one is told or reads; literacy, to us, means having genuine understanding, so that what is learned does not depend just on rote memory, but is not easily forgotten and can be generalized and applied to new situations, so that it serves people throughout their lives.

We suggest that this higher-level literacy, also referred to as critical or higher-level thinking, involves the same cognitive skills applied to all subject areas. Therefore, we can speak not only of literacy in relation to learning and using language, but also of mathematical, scientific, technological, and artistic literacies. This higher-level literacy is closely linked to language, because language is inextricably linked to

thought, no matter what the specific content of that thought.

> The teaching of language should aim for more than the achievement of linguistic competence; it should attempt to improve communication and critical thought.[6]

The literacies across the curriculum

> There is a transition to life; there is another transition when a child starts formal schooling in Grade 1; there is a transition into adolescence; and another when a youth is getting ready to move out of the school system and has to make decisions about where to go from there.[7]

In Chapters 7 through 9, we describe a "curriculum for literacies" in three stages, roughly corresponding to these three transition points or phases in human development. We find these transition points – the transition to formal schooling, to adolescence, and to work or career education – a useful framework for considering the development and needs of learners, and think of them as "learning transitions," because learning and total human development are inseparable. The developmental framework also underlines the reality that health, broadly defined and including emotional health, is a pre-condition for optimal learning.

The first learning transition is to life, and describes the cognitive development of the infant and toddler; the literacy curriculum for learners from birth to age 6 is discussed in Chapter 7. The next transition is to formal, compulsory education in school, and, about six years later, there is a third transition, the biological and social transition to adolescence. Both occur while children are in Grades 1 to 9, and we describe the literacies curriculum of these years as the "common curriculum," acknowledging that while the subjects in the curriculum, and its universality across all students, do not change as students enter adolescence, some of the organizational aspects of schooling, and the emphasis on future planning and decision-making do. Finally, there is the transition to adulthood – to independence, choices about the future, employment, and family formation – what we call the transition to post-secondary life, describing that part of the literacy curriculum (in Chapter 9) as the "specialized curriculum."[9]

While the definition of literacies broadens and expands at each of these transitions, what remains constant is that it always focuses on enquiry, expression, and understanding; it is about the learner's growing capacity to deal intelligently with information.

Endnotes

1 UNESCO, International Commission on Education for the Twenty-first Century, *Learning for the Twenty-first Century* (Paris: UNESCO, 1994), p. 8. Prepared by G.S. Papadopoulos.

2 Philip Nagy, "National and International Comparisons of Student Achievement: Implications for Ontario." Report written for the Ontario Royal Commission on Learning, 1994.

3 A.G. Hilliard, "Why We Must Pluralize the Curriculum," *Educational Leadership* 49 (December/January 1991/92), p. 12–14.

4 Stephen Lewis, "Report on Race Relations," 1992.

5 Government of Newfoundland and Labrador, Royal Commission of Inquiry into the Delivery of Programs and Services in Primary, Elementary, Secondary Education, *Our Children, Our Future: Summary Report* (St. John's, 1992), p. 20–21.

6 Premier's Council of Ontario, *People and Skills in the New Global Economy* (Toronto, 1990), p. 27.

7 Premier's Council on Health, Well-Being, and Social Justice, *Yours, Mine, and Ours* (Toronto: Ontario Children and Youth Project, 1994), p. 33.

8 We are using the term "common curriculum" to describe the curriculum of Grades 1–9 and "specialized curriculum" to describe the curriculum from Grades 10–12. We use these terms in preference to "elementary" and "secondary" for two reasons. First, this division is confusing, in that "elementary" will connote Grades 1–6 to some, 1–8 to many, and 1–9 to still others. Second, we think that the two terms suggest a degree of difference in curriculum and school organization that may be exaggerated to an undesirable degree.

7 The Learner from Birth to Age 6: The Transition from Home to School

The "curriculum" of the home and of early childhood, although unwritten, has a profound impact on the child's likely success in mastering the curriculum of the school, and in becoming an accomplished learner. For that reason, our discussion of curriculum – what we want children to learn – begins not at age 6 and in Grade 1, or at age 4 and in junior kindergarten, but at birth.

The learner from birth to age 3: The literacies curriculum of home and care

There is increasingly strong evidence that the relationship between early experience and the later ability to learn (competence), which we touched on in Chapter 5, begins at birth. Recent research suggests that the interaction between environment and learning is intense from the very beginning of the infant's life, and may have far-reaching influence on later development.[1] This means that healthy environments for young children must be supported and strengthened. Poverty, after all, is a major determinant in lowering the level of their health and competence. We agree with the Premier's Council on Health Strategy that reducing poverty levels must be an integral part of any intervention strategy.

Effective teachers and schools can offer children advantages, but they are probably not able to undo all the harm that poverty creates. Efforts to improve education that are not accompanied by programs to address life circumstances that handicap children early, and sometimes permanently, will never reach their goals. The equity question, which is most often raised when young people are in secondary school, must also be addressed in social policies and practices that have an impact on what happens before birth and in the first years of life.

Yours, Mine, and Ours, the report of the Children and Youth Project of the Premier's Council on Health, Well-Being, and Social Justice, points out that two key determinants of a child's successful transition to life are the health of the mother, and her comprehensive care before, during, and after pregnancy. Therefore, we agree with the project recommendations for a comprehensive range of health, social, and parent support services. Health services for mothers are inextricably linked to educational outcomes for their children. When programs, whether "health" or "education," are funded, policy makers badly shortchange society if they do not consider these links. The opposite of value added is money wasted. Later in this report we suggest mechanisms for ensuring that these links are created and are maintained. A few prototype programs exist; in Ontario there is the Better Beginnings, Better Future project, an umbrella for eight programs in different communities, all of which address the social, emotional, behavioural, physical, and cognitive development of children from birth to 8. These programs work with children, families, schools, and communities, and are jointly funded by the Ministries of Community and Social Services, Health, and Education and Training, as well as the federal Department of Indian and Northern Affairs and the Secretary of State. They are long-term (25-year) programs with built-in evaluation, and their goal is to help everyone in a community come together to raise healthy children.[2]

As mentioned earlier, the first determinant of a healthy child is the presence of a nurturing, consistent, and dependable caregiver, usually one or both parents or another adult who provides security, stimulation, and positive social interaction. The other is a supportive (and safe) community, which can facilitate parents' efforts and, if necessary, attempt to compensate for ineffective parenting. Teaching good parenting skills in advance is, of course, much more effective and efficient than having to intervene later. Communities support healthy babies and young children through policies

observations

Children who are developing strong literacy skills at home are being read to, and are watching others read and write.

Children of parents who cannot read or write are less ready for school, because there is such a wide gap between the curriculum of home and school. Thus, parental literacy programs are a very significant component of an educational system that supports children's learning.

that allow families to spend time together and provide good out-of-family settings for children who need them.

Yours, Mine, and Ours recommended family-friendly policies in the workplace, to allow working parents flexibility, especially when their children are young – flexibility in hours, sick leave and parental leave, in part-time or at-home work (without diminishing benefits or career choices), and in flexible use of benefits. We view such family-friendly workplace policies as essential support for child care, and believe that governments should offer inducements and public recognition to employers, in order to encourage such policies.

One of the key determinants of school readiness is the amount of stimulation infants and young children receive in a nurturing environment. In a very real sense, the literacy curriculum of infancy and toddlerhood is the curriculum of the home. It is language- and speech-based, but also involves print. Children who are being readied for future learning (and, therefore, for school) are spoken and listened to; have their questions answered; are offered explanations; and are encouraged to try new words and ideas, to imagine, to guess, to estimate, to draw, and to observe. When they watch television, there is often a parent to mediate, either watching with the child or talking afterwards about what has been viewed.

While most parents are aware that babies and young children benefit from stimulation through language, many may not know how important it is and how simply and effectively it can be provided. Because parents are their children's first and most powerful teachers, a society committed to lifelong learning will support and encourage parents in that role, and remind them of the power and responsibility it entails.

Children who are developing strong literacy skills at home are being read to, and are watching others read and write. Children of parents who cannot read or write are less ready for school, because there is such a wide gap between the curriculum of home and school. Thus, parental literacy programs are a very significant component of an educational system that supports children's learning.

We are aware that services to support new parents may have to be integrated and delivered in a different way, that the balance between centralized and local authorities and the relationship between public and private sectors may have to change. We are aware, too, that concern about these kinds of changes prevented implementation of recommendations made in earlier reports. The many government departments with responsibility for children's health, welfare, and education, and the local agencies they fund operate under different legislation and regulations, making co-ordination and integration very awkward. We believe that if government does not provide leadership in these areas, and if public support for a stronger commitment to children's well-being is not made clear, we cannot expect any decline in the factors that put children at risk for life – low birth weight, neglect, and abuse; we cannot expect children who live with this level of risk to be ready for school. We must understand that these consequences, which are universally deplored, follow from conditions that are obvious, and that we have the capacity to change. If we choose not to change them, we cannot be surprised that they continue to exist.

If we want to build a learning system, we must begin, not at age 6, but before birth. We must address issues of income and the health of mothers, so that newborns will be fully equipped to learn. After that, the essential need is to reach out to new parents with information and support for effective parenting. Policies that help parents to parent, to spend time with their children, to be nurturant, to become literate, and to provide a stimulating environment for the development of language and learning are a vital component of a learning system. Information, too, can make a difference, especially if it is widely disseminated. The Ministries of Education and Training and Community and Social Services could take joint responsibility for ensuring that all new parents have information and support in creating a stimulat-

North York Public Library Dial-a-Story Service

Encouraging young children to read, and parents to read to them, is part of the mandate of public libraries. In order to promote these activities, the North York Public Library established a Dial-a-Story service: a new story is recorded every day in English, and once a week in French. Parents (or children themselves) can call and listen to a story, which is especially helpful for parents who are not literate because it gives them access to children's literature and helps them to share language and ideas with their children.

success story

ing home environment for children. Informative brochures could be delivered to parents in doctors' offices and clinics, in hospital maternity wards and birthing centres, in public and school libraries, and at parenting and child-care centres. As well, television, telephone (an 800 number across the province), and computer networks are media that reach out to parents.

As an example we suggest that the Ministries of Health, Community and Social Services and Education and Training collaborate with TVO/La Chaîne Française to produce brief informational videos on stimulating home environments for infants and toddlers, showing the link to school readiness, and describing the availability of adult and family literacy courses. These tapes, in addition to being aired publicly on TVO/La Chaîne and elsewhere (CBC, YTV) should be available at doctors' offices, pre-natal clinics, and maternity wards, as well as through public libraries and schools, for individual use and as components of parenting courses. Such information is only one example of a variety of child-care services and resources that should be available to parents.

The Ministry of Community and Social Services funds a number of parent resource centres that offer information and materials that assist parents and other caregivers. While these centres are sometimes located in schools and are often well used, it is not clear how strong a connection they have to schools. In our view, the two Ministries, Education and Training and Health, would enhance preparedness if they co-operated to help children with school readiness, and linked parents and schools before children enter the formal system.

These and other recommendations in this report require inter-departmental co-operation in program development and delivery, and they are supported, later in the report, by a discussion and recommendations for implementing strategies that cross government departments.

The learner from age 3 to 6: The literacy curriculum in a school setting

At present, children arrive in Grade 1 at various stages of readiness, and with a wide range of prior knowledge and understanding, to learn in a group setting. The curriculum of pre-school or early education is a continuation of the curriculum of the home: the stress is on acquiring speaking and listening skills, increasing vocabulary, learning by observation and inquiry, developing the ability to communicate through writing and reading, and on learning in an environment which is both very stimulating and very nurturant. And, as at home, a great deal of learning occurs within the context of games and play. What can be added to the curriculum of the home, as a vital piece of school readiness, are the skills for learning in a group – what we might call "interpersonal literacy."

Many children, especially in disadvantaged neighbourhoods, are identified in Grade 1 as having a poor prognosis for school success, and all too many of those do become unsuccessful students and eventual school failures. While some children categorized as at-risk are helped successfully to overcome early gaps and to progress with their peers, many others are not. Earlier education is one of the most promising tools in the struggle to help these children, and to overcome the handicap of lack of stimulation and development. Effective school readiness programs are known to make a substantial difference for children's ability to benefit from compulsory education at age 6.[3] Thus, these programs are a very major response to the issue of inequitable outcomes of schooling.

Research on early learning has changed our understanding of what is appropriate for toddlers. We now know, for example, that children acquire number concepts in infancy, and that by age 3 there are substantial differences among children in their understanding of how to count and calculate. These result in very different degrees of readiness for learning in Grade l, gaps that schools must work intensely and extensively to eliminate, and which, in fact, usually grow rather than shrink in the elementary years.

• by age 3 there are substantial differences among children in their understanding of how to count and calculate;

• by and before age 4, the failure of a great many of our children to acquire knowledge and understanding will have serious consequences for their formal education;

• by the time children begin Grade 1, variations in oral language, vocabulary, and comprehension are so great that it is difficult for teachers to narrow the distance between children who are more and less ready to learn in a formal setting;

• children identified in Grade 1 as having a poor prognosis for school success all too often do become unsuccessful students and eventual school failures;

• effective school readiness programs are known to make a substantial difference for children's ability to benefit from compulsory education at age 6.

> Although many children start school with a well-developed understanding [of the concept] of number ... not all children do so. In particular, when tests of conceptual knowledge were administered to groups of kindergarten children attending schools in low-income, inner city communities, [in Canada and the United States] a significant number have been unable to demonstrate the knowledge possessed by their middle-class peers.[4]

The gap that develops among children between infancy and age 3 is the result of differences in environmental stimulation and emotional support in areas that affect the chances for later school success. We have known for some time that, by the time children begin Grade 1, variations in oral language, vocabulary, and comprehension are so great that it is difficult for teachers to narrow the distance between children who are more and less ready to learn in a formal setting. It is clear that, by and before age 4, the failure of a great many of our children to acquire knowledge and understanding will have serious consequences for their formal education.

There are a myriad of model programs for early childhood education, some operating in the child-care framework and others in the public education systems of various jurisdictions. Many have been evaluated on how well they prepare children for compulsory schooling.

One category is the full-day kindergarten for five-year-olds. In a 1989 review of studies that compared various effects of full-day and half-day kindergarten programs in the United States, almost two-thirds showed academic advantages for the full-day program. All the studies that focused on disadvantaged students reported significant differences in academic gains for those in the full-day program. Nine studies compared such social effects as classroom behaviour and attitude to school and only one favoured the half day. Staff and parent reactions to full-day programs were very positive.[5]

A Toronto study of all-day kindergarten showed gains in language, attentiveness, and positive student-student and student-teacher interaction. A follow-up four years later found that students who had been in the all-day program had a lower rate of failure by Grade 4 than the comparison group.[6]

An Ottawa-Carleton study conducted in the context of French-language education in a minority setting examined the impact of full-day kindergarten on the development of

specific aspects of competence in French (reading readiness, oral vocabulary, and language use). After a year, all the children in full-day programs showed significantly greater gains in language development than those comparable children not in the program.

One of the groups for whom pre-school education could be most critical in Ontario is the Franco-Ontarian community and other francophone children. Assessments consistently show francophone students performing below anglophones in mathematics, science, and literacy/communication. Not only do Franco-Ontarians have, overall, a relatively low number of years of schooling; they also often have weak skills in French, and consequently real difficulty supporting their children's education when they have elected to send them to a francophone school.

At present, 85 percent of Ontario's four-year-olds and 99 percent of five-year-olds are enrolled in kindergarten programs, almost all half-day. While these are intended to stimulate children's curiosity and develop their language awareness and desire to learn, they are not defined as school readiness programs. As a result, they suffer some isolation from the rest of the curriculum, as well as a certain devaluing by those parents, teachers, and others who often view them as mere baby-sitting.

Although good pre-school education can benefit all children, much of the research on pre-kindergarten programs has focused on programs targeted to children who come from disadvantaged backgrounds, and who are likely to be at risk of later school failure. The most cited example in the educational research literature is the Perry Preschool Study, which has a very unusual longitudinal component – follow-up over 24 years. Children who, at the age of 3, participated in small groups in a well-designed pre-school program, based on a curriculum that emphasized thinking and learning skills and that included meals and health care as well as outreach to parents, have been followed to age 27. They came from an extremely poor neighbourhood in the state of Michigan, and they and a comparison group from the same area, who did not go to the pre-school, have been followed by researchers through the intervening years. The high school completion rate of the pre-school group was 71 percent, compared with 54 percent for the others.

After 24 years, the pre-school group was characterized by higher incomes, fewer children born outside marriage, lower arrest rates, and more home ownership. This study is cited so often because the long-term follow-up makes clear how much is saved, financially as well as socially, by effective early education. If the Perry alumni and the members of the comparison group continue to be followed, one would expect to see further differences in the next generation, whose early learning context is affected by their parents' levels of education and stability.[7]

The Perry follow-up data help to clarify the connection between high-quality education that begins early, and poverty: a strong start means a better chance of succeeding in school, which, in turn, means a better chance for a decent job, which means that the next generation does not grow up in poverty, does not need extra help to succeed in school, and so on.

Programs like Perry Preschool were designed for children from disadvantaged homes, those who have the most need, and stand to gain the most from good early education. They are exemplars of fairness and equity, of attempts to decrease the disadvantages borne by children who otherwise would be severely limited in their opportunities for later success in school and in life.

In some countries full-day public education begins at age 3 for all children, because the culture subscribes to the idea that all or most children will benefit from the group learning experience at that age. In such systems, early education serves goals of both equity and excellence; it is viewed as a head start for all, and a way of increasing opportunities for learning later on, by building a strong foundation.

Universal early education is not uncommon in Europe. In France, for example, the *écoles maternelles* for three- to five-

year-olds were established as a response to the perceived advantages of early education, long before it became common for mothers of young children to enter the workforce. The école maternelle was not conceived as a child-care program and was not targeted at those living in poverty, but as part of universal, free, public education. The staff is led by teachers, and while the curriculum is tailored to the age of the children ("age appropriate"), the goals are academic and social preparation for primary school. According to a Toronto teacher quoted in the media:

> The world can look to France's preschool system the way it can look to Canada's health-care system: Despite its critics and the inevitable recession-induced financial strains, it's there and it works: Ninety-nine percent of French children, ages 3 to 5, are in preschool for free or for next to nothing ... The French take preschooling seriously ... It's not something done to and with kids alone; it's an integral part of the community ... it pays off financially ... It also pays off socially. Children who go through the preschool "don't have the difficulties" in later levels of school experienced by kids who don't go to pre-school ... Teachers alone don't determine what happens to a child. Local government is involved ... And the parents have their say too ... in North America ... it seems schools are left to the teachers and students. Here it's everybody. As a teacher, I can say it helps.[8]

There is evidence that this is true: 1983 data from France indicate that, with each year of pre-school (one, two, or the maximum of three), the number of children who are required to repeat Grade 1 decreases, and this is true regardless of the parents' occupation. The gap between the children of the most and least skilled workers does not disappear, but, at each level, the children benefit. In 1980, the French Ministry of Education identified a sample of 20,000 sixth-graders and monitored their progress. Each year of pre-school enrollment increased the likelihood that a child would be promoted from sixth to seventh grade, and later follow-up showed this was also true at the high school level.[9]

A recent review of research on pre-school education in Britain, Sweden, and the United States concludes that

> the long-term educational benefits stem not from what children are specifically taught but from effects on children's attitude to learning, on their self esteem, and on their task orientation ... learning how to learn may be as important as the specifics of what is learned. The most lasting impact of early education appears to be children's aspirations for education and employment, motivations and school commitment. These are not moulded directly through experiences in the pre-school classroom but are indirect effects of children entering school with a learning orientation and beginning a "pupil career" with confidence. This enables them to avoid early school failure and placement in special education ... Early childhood education may be viewed as an innovative mental health strategy that affects risk and protective factors.[10]

Early childhood education is an innovative educational strategy in North America, where the new demographics of families, and an understanding of the importance of early learning, have been ignored.

Time and again, the Commission was told to learn from other countries, and early education is an area in which we found much to learn.

Because there is powerful evidence that early education alters the amount and kind of learning students engage in, and because this is most true for children whose potential is otherwise most likely to be unrealized, we believe early education is one of the most powerful engines for transforming our educational system. That is why one of the four major recommendations of this Commission is that a school readiness program be created for three- to five-year-olds, closely modelled on that in France.

While we appreciate the need to proceed gradually, we are convinced that early childhood education must be part of public education, offered as an option for all three- to five-year-olds for the full day, with the option of a half-day schedule for those parents who may prefer it.

success story

1992, the Lincoln County Roman Catholic Separate School Board implemented full-day kindergarten; one year later a program review revealed that parents felt their children had developed a wider range of academic and social skills, while teachers said that the longer day was useful for learning experiences. Observation indicated that more students showed competence in more areas of performance. While parents could choose the half day, only 5 percent did, but they were pleased with their choice and hoped the half-day option would remain.

Recommendation 1

**We recommend that Early Childhood Education (ECE) be provided by all school boards to all children from 3 to 5 years of age whose parents/guardians choose to enrol them. ECE would gradually replace existing junior and senior kindergarten programs, and become a part of the public education system.*

We note that a very similar recommendation was made by George Radwanski in his report to the Ontario Ministry of Education in 1987: "That all school boards in Ontario be required to provide universally available early childhood education in public and separate schools for children from the age of three." Radwanski concluded that such education should be universal rather than targeted at disadvantaged children for a number of reasons, and suggested that

> The need for deliberately provided early learning experiences and intellectual stimulation outside the home may no longer be limited to children from the most obviously disadvantaged households ... numerous children of non-needy and relatively well-educated parents are spending much of their time in sub-optimal care arrangements that do not provide the fullest opportunities for early development.[11]

Although the reduced need for later remedial school programs, as well as for income support and correctional services, offers the promise of enormous savings, providing one and one-half extra years of education also involves an initial cost. Some monies will be recovered as the need to subsidize child care for low-income parents is eliminated. (There will be other economies in the system that will help to fund Early Childhood Education. For example, see Chapter 9 for a discussion of eliminating the fifth year of high school.)

For these reasons, as well as because it affords an opportunity to monitor and evaluate new programs, and because some schools currently lack the physical space to expand their programs, gradual phase-in would be sensible, initially providing funding for only a limited number of spaces, and looking at mandated province-wide delivery as being some years away.

Recommendation 2

**We recommend that the ECE program be phased in as space becomes available.*

We do, however, wish to make a recommendation regarding priorities in funding because of the particular disadvantage suffered by the many children of Franco-Ontarian cultural background who do not have a strong home background in the French language.

Recommendation 3

**We recommend that, in the implementation of ECE, the provincial government give priority funding to French-language school units.*

ECE classes would likely be served by teams headed by trained teachers, would include child-care workers, and would emphasize cognitive and linguistic stimulation, socialization, and skills in learning in a group.

Our expectation that the costs of this program would be partially offset by less money spent on remedial and special education, and on other programs for those who now fail to thrive in school, is supported by evidence from well-designed child-care and early education programs.[12] Extended daycare should be available (before and after the school day) on a cost-recovery (parental-fee) basis, with subsidies available (as at present) for low-income parents.

We have stressed the critical importance of Early Childhood Education for Ontario children, and we also insist that, despite its urgency, the recommendation we make is a longer-term one, and implementation of the program should proceed gradually. The question of existing and additional human resources needed to staff the ECE classes, of personnel training or retraining, of the issues of differentiated staffing provisions, of the portability of experience, and of educational backgrounds are but a few of the challenges

"Ontario's schools should

• support a continuum of quality care and learning in education for all children in Ontario;

• provide support for this ... in a way that ensures equity of access;

• support a co-ordinated day, linking the home, the child-care facility, and the school;

• link in a meaningful way with organizations that support children and families within the school community, such as family resource centres and child-care centres not in schools."

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of implementing ECE. Our thinking on this subject will be found in Chapter 12, where we discuss issues and concerns of educators as professionals.

In the same vein, we do not want to minimize the challenge posed by the space needed to accommodate ECE classes. Lots of work will be required to develop and design good detailed implementation of this key proposal of our report. But it would be very disappointing, and frankly only too facile, to hide behind such constraints to do nothing, or to turn them into insurmountable barriers prohibiting the implementation of a much-needed policy for our children.

Just as new parents need to know, even before their child is born, what constitutes a nurturant and stimulating environment for infants, so do parents of older pre-schoolers need to be able to obtain information on ways they can support growth in learning for three- to five-year-olds, irrespective of whether their children are enrolled in ECE. The Ministries of Education and Training and Community and Social Services would perform a useful service by making information widely available on healthy environments for learning for three- to five-year-olds. Information tailored to the home environment, describing ways of supporting learning for toddlers, whether or not they are enrolled in ECE, could be distributed very widely at schools and elsewhere.

It is clear that children flourish when the worlds in which they live intersect. They are supported if parents are familiar with the class, and teachers are familiar with the home, and, when before- and after-school programs are involved, the child-care and the teaching staffs know one another and are willing to work co-operatively.[13]

Research supports the belief that these links have a positive effect on children. Home visits by teachers, for example, are a very effective vehicle for welcoming new children into school. Early childhood education programs that involve regular contact with parents tend to be among the most successful in the long term, and have shown benefits for younger siblings as well.[14] Early involvement of parents in their child's education lays the foundation for a strong home-school link.

While excellent early education is an advantage for all children, those who, as early as age 3, show signs of learning or interpersonal problems will have the advantage of being identified and helped much earlier. Experience in primary classes in Ontario and elsewhere shows that teachers can identify such difficulties in young children,[15] and in some cases, early remediation has been effective. To the extent that this identification and intervention takes place earlier in the child's life, it has the potential to be more effective in the long term, including in the primary years when the fundamental literacies and numeracies are being acquired.

The Common Curriculum, Grades 1–9, recently developed by the Ministry of Education and Training, specifies desired learning outcomes for students. The Ministry could usefully develop a similar set of desired learning outcomes for ECE, to make clear how the curriculum of the early years is connected to that of the primary years. The earliest outcomes described in *The Common Curriculum* apply to the end of Grade 3; a parallel description should be created for the transition to Grade l, indicating desired outcomes for literacy, numeracy, and interpersonal and group-learning skills.

As well, a developmental continuum that indicates stages of cognitive and social growth for children from birth to adolescence would be a real asset to all parents, teachers, and child-care workers, and would promote continuity and consistency among the home, daycare, and school.

Recommendation 4

**We recommend that the Ministry of Education and Training develop a guide, suitable for parents, teachers, and other caregivers, outlining stages of learning (and desirable and expectable learner outcomes) from birth onwards, and that it link to the common core curriculum, beginning in Grade 1. This guide, which would include specific learner outcomes at age 6, would be used in developing the curriculum for the Early Childhood Education program.*

Speaking generally, we would suggest that the outcomes of ECE should include both achievement and attitude-related elements, including a greater readiness to learn to read, a better sense of number and quantity, and better skills related to working with others, listening to directions, and helping others. Children should be both more mature, as a result of opportunities for social and emotional growth, and more learned, as a result of increased exposure to an environment that is rich with talk and print.

We note that research supports a carefully structured environment for young children, with considerable adult-child and child-child interaction. A recent study of exemplary kindergarten programs in Ontario found three basic components: play and problem solving, language and literacy, and social-emotional development.[16]

Play, structured or unstructured, is demonstrably related to problem solving, cognitive development, emerging literacy, and social and personal development. It is not, as sometimes it is assumed to be, a frivolous and purposeless use of time. The extensive literature on children's play documents the extent to which children at play are working on understanding and expanding language, as well as such concepts as cause and effect, patterns and categories, and other basics.[17] When teachers structure play so that children are confronted with new problems and new challenges, and observe it systematically, they have an optimal opportunity for both evaluating a child's level of development and building on it – to know what the next step is and help the child reach for it.

Over and above what would occur naturally as children mature, language development is a realistic and central component of early education; it depends on an active, purposeful, interaction of adults with children in the classroom. Number pattern and sense, too, are also reinforced by structured play and experiments.

Similarly, children's best social and emotional development depends on teachers' abilities to arrange positive peer experiences and prevent or interrupt negative ones.

Well-structured programs for young children must also be based on careful observation and monitoring of individual progress. Youngsters' ability to use language varies considerably, as does their skill in carrying out tasks and interacting successfully with peers. The teacher's role as child monitor and as program designer and redesigner is crucial, and she or he must be able to amplify or simplify tasks so that each child has opportunities to be challenged and to succeed. Those whose literacy develops earlier must have appropriately demanding tasks in order to move on.

In fact, research suggests that children from backgrounds where the language is other than that of the school may be more successful in school if they participate in pre-school or kindergarten programs that use their first language for instruction.[18] In other words, a local school community might opt for ECE in Portuguese or Vietnamese; there is evidence that, when skills in their native language are more fully developed, children are likely to be more successful in English later. (See Chapter 10 for more discussion of transitional use of languages.)

There must be acknowledgment of the minority groups from which children come, in order to foster the child's sense of self-worth. All educators must be sensitive to identity issues: in a study of both English- and French-language kindergartens, for example, an emphasis on their culture was identified as a key to French-language kindergarten programs for the Franco-Ontarian community. Its members want an educational milieu that counteracts the forces of

summary

A learning system that is continuous from age 3 through secondary school is based on the belief that children can know more and do much more by the time they are adolescents than is now the case. That concept rests on the fundamental premise that, having entered compulsory schooling with the advantages of Early Childhood Education, children will be predisposed to become literate and numerate in the primary grades. An early start – whether at home, at school, or ideally, both – will enable teachers and students to embark on the common curriculum with high expectations.

assimilation by validating and supporting the non-dominant language and culture.[19] Children in a French environment who have opportunities to use that language in different contexts and for different purposes are building a solid base for conceptual development, as well as a positive personal and cultural identity. All children benefit from the opportunity to build a positive personal and cultural identity.

One of the best ways to honour all children's identities, and at the same time to strengthen home-school and school-community ties, is to bring parents and other community members into the school as valued helpers and resources; it is also useful to take children out to see and participate in diverse community and work settings in the neighbourhood. Such community-based curriculum, while simple and enjoyable, offers a multitude of benefits by combining community studies, career awareness, and neighbourhood safety. (There may have to be additional planning and organization for community-based curriculum in municipalities with few activities, programs, and resources in French.)

Early Childhood Education is one way of creating learning contexts for young children. There are others for those who will not be participating in ECE but will be cared for at home; the network of support and education described in the section on birth to age 3 must continue, along with parent-friendly policies in the workplace, and the informational outreach suggested earlier. Some schools already operate drop-in centres for parents and others who care for young children; and some of these centres are located elsewhere in communities. Parenting courses and adult and family literacy courses are offered, through both schools and community agencies. School libraries can also be available to parents of young children, especially if an older child already attends school. Public libraries offer resources for children and parents in many languages.

In the following pages, we build on the idea of a learning system that is continuous from age 3 through secondary school, and is based on the belief that children can know and do much more by the time they are adolescents than is now the case. That concept rests on the fundamental premise that, having entered compulsory schooling with the advantages of Early Childhood Education, children will be predisposed to become literate and numerate in the primary grades. An early start – whether at home, at school, or ideally, both – will enable teachers and students to embark on the common curriculum with high expectations.

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8 The Learner from Age 6 to 15: Our Common Curriculum

The advantage of an excellent Early Childhood Education for children aged 3 to 5 is that, when children begin compulsory schooling at age 6, they will have been prepared to learn during these first three years. There is widespread agreement that the foundation of a good education is laid down in these years, and that the success a child experiences in acquiring literacy and numeracy at this stage is an accurate indicator of long-term success.

If, when they begin Grade 1, children are disposed to learn, are able to concentrate, know how to learn in a group, and have high expectations of themselves as students, the probability of creating a learning community in each classroom becomes much greater.

The transition to compulsory schooling

At present, teachers attempt to establish a learning community despite the fact that every classroom includes some children who are unable to take turns, wait for the teacher's attention, or absorb the information being offered. While a sound program in the early years does not guarantee that every child will be perfectly ready for formal learning, it will go a long way toward ensuring that they are more ready, socially and cognitively.

The child who is ready to learn needs skilled and nurturing teachers who have clear ideas about what children should learn, and a variety of solid strategies for helping them do it.

As the report *Yours, Mine, and Ours* points out: "Children need positive social interaction as their thinking and language competencies develop."[1] This is as true at school as at home: young children depend on teachers to be warm, supportive adults and to facilitate safe and positive peer interaction. Without a sense of safety, it is very difficult for youngsters to pay attention to learning tasks.

Students and teachers must know what the learning goals and expectations are. The curriculum should be a plan, shared by all teachers, that describes where they are attempting to lead students, and the sequence in which they will do so. Annual and long-term goals and expectations must be clear to teachers and students and to parents whose support and help in the overall plan is crucial to its success. We cannot be surprised by confusion and dissatisfaction about what students need to know – whether they learn it well enough and are well prepared for the future – if we are not clear about what we expect them to learn, what the learning outcomes are, how we will know they have learned it, and what the standards of acceptable attainment are. Moreover, teachers must have clear guidelines about what is essential and what is not and must be prepared for, and supported in, their work. A common curriculum, commonly described and understood, and with well-defined standards, is the essential underpinning of publicly supported schools.

This chapter is divided into five parts. The first four deal with curriculum components and the supports at the school and community level that are necessary for effective curriculum implementation for children and young adolescents, from Grade 1 to Grade 9 inclusively: that is, what needs to be in place in order for all or almost all students to learn what we agree they should.

The last part concerns curriculum organization and development, and deals with some principles that we think will support effectiveness, efficiency, and equity.

We are suggesting that curriculum guidelines should recognize the primacy of certain skills, and that teachers, in the early grades especially, should emphasize and carefully monitor the acquisition by all students of these foundation skills, within the context of an integrated curriculum.

Because of the emphasis we put on the early acquisition of foundation skills within the context of a core curriculum, the first half of this chapter appears to stress the early years (Grades 1 to 3), although much of what we say applies equally to the whole of the common curriculum, Grades 1 to 9.

Some definitions:
"common curriculum": a curriculum that defines what students of a particular age will study.

"*The Common Curriculum, Grades 1–9*": a document released by the Ministry of Education and Training in 1993, which defines a common curriculum of about 15 subjects organized into four integrated "strands," which comprise the whole of the curriculum for all students for all of the nine years.

"foundation skills": as defined in this report are literacy/communication skills, numeracy/problem solving, group learning and interpersonal skills and values, scientific literacy, and computer literacy. While these foundation skills are represented in particular subjects within the common curriculum, such as English/Français, mathematics, and science, they are also fundamental in most other subject areas.

"core curriculum": all the subjects taught within the common curriculum in addition to the foundation skills.

The foundation: The essential elements of the elementary curriculum

Children begin compulsory education in Grade 1, in the year they reach age 6. For the next nine years, their curriculum is prescribed according to *The Common Curriculum, Grades 1–9* released by the Ministry of Education and Training in 1993.[2] The basic curriculum plan for those grades, it was being revised while this report was being prepared, and is expected to be revised periodically.

The curriculum is presented as four integrated strands: language; the arts; math, science, and technology; and a catch-all, self and society, which includes social studies, business studies, family studies, guidance, and physical and health education. *The Common Curriculum* describes what students should know and be able to do by the end of Grades 3, 6, and 9, across a range of subject areas. The curriculum is termed "common" because it applies to all students, and accounts for all or most of their learning time during the school day.

The Common Curriculum does not give priority to any particular subjects. It seems to us, however, that some skills really are grounding for further learning; they include the traditional basics – literacy and numeracy – as well as the "new basics" – group learning and interpersonal skills and values, scientific literacy, and computer literacy. Therefore, it is reasonable to ask primary and junior grade (1 to 6) teachers to concentrate on helping students achieve competency in these five areas.

We are not suggesting that these skills be taught without context, or that the context is not important to the learning. We know that best practice does not entail teaching "basic skills" first and "thinking skills" afterwards. Rather, children must be focused on both form and meaning from the beginning, so they understand that reading and arithmetic are supposed to make sense; if the word makes no sense in the sentence, or the answer does not fit the problem, the child must question it and try again. Teaching children how to estimate answers in arithmetic is an example of teaching for meaning, and of giving students the skill to question, and if appropriate, correct a specific response.

A child would have a very firm educational foundation if, by the end of Grade 3, he or she was well able to learn from print; could apply a basic understanding of arithmetic to the kinds of problems that might be encountered in appropriate school projects (constructing, measuring, drawing, graphing, etc.); knew the kinds of questions to ask to test an idea or an argument; and was capable of knowing how and when to ask for help, offer help to others, and work independently or collaboratively.

Young children are not equipped to learn from abstraction, and it is essential that both verbal and quantitative skills be learned through the concrete; that is why arts and hands-on science and other kinds of "projects" are so important. These applied areas of curriculum act to motivate young students, giving them reasons to read, write, compute, and think. Like adults, children need to know the purpose of

Students, parents, and teachers must know what the learning goals and expectations are.

Teachers must have clear guidelines about what is essential and what is not, and must be prepared for and supported in their work.

learning, and a concrete outcome – a chart, a picture, a tower, a play or a debate provides that purpose, whether for reading, writing, measuring, calculating, or co-operating.

Acknowledging the existence of priorities in Grades 1 to 3, literacy, numeracy, group learning and interpersonal skills, as well as an introduction to scientific reasoning gives a focus to the common curriculum in these foundation years. While other subject areas can and must be used to make the abstract concrete, and to enrich children's exposure and experience, "covering" an extensive list of topics or outcomes in myriad subject areas should not be the teacher's agenda. (The other "new basic," computer literacy, should also begin in the primary grades but will probably be developed most after Grade 3.)

In the junior grades (4 to 6), there is a similar need to teach and review the skills required for working together, which are essential for optimal learning. And while basic literacy is most intensely acquired before Grade 4, junior grade teachers must be able to diagnose their students' literacy levels quickly and accurately; they have to know the language and cognitive development continuum so that they can "scaffold" learning for each student – know what the next step is and how to help the youngster achieve it, as well as how to use peers and others to support a learning environment.

The emphasis on numeracy must continue, as students' knowledge of the fundamental arithmetic operations is being extended and consolidated. Scientific literacy should be increasingly emphasized and computer literacy should become a focus.

The fact that these generic skills – communication, problem-solving, group learning and interpersonal relationships and values, scientific and analytic thinking, and computer technology – are acquired continuously as the child develops is illustrated by a recent draft document produced by the College Standards and Accreditation Council of Ontario. It describes communications, mathematics, group learning and interpersonal skills, analytic skills, and technological literacy as the generic skills around which learning outcomes must be organized at the college level.

We believe that if teachers and parents are to know how well students are acquiring these skills, clear standards must be developed for each skill. At present, the standards for mathematics have been set out; they are in draft form for language.[3] We believe that, in addition, they should be established for science, computer literacy, and group learning and interpersonal skills and values. We suggest that the Ministry of Education and Training use the expertise of professional educators to create and assist in field testing standards in these areas.

Recommendation 5

**We recommend that learner outcomes in language, mathematics, science, computer literacy, and group learning/interpersonal skills and values be clearly described by the Ministry of Education and Training from pre-Grade 1 through the completion of secondary school, and that these be linked with the work of the College Standards and Accreditation Council, as well as universities; and that clearly written standards, similar in intent to those available in mathematics and language (numeracy and literacy), also be developed in the other three areas.*

These standards should be used as guides by teachers for regularly monitoring and assessing students, using a variety of strategies, including performance and portfolio review (see Chapter 11).

The following is a description of our concept of each of these fundamental skills areas.

Literacy/communications skills

With or without Early Childhood Education, the primary school grades are correctly seen as laying the foundation of the child's education. In the minds of parents and public, these grades are, above all, about learning to read and write. Parents are right: nothing is more related to a student's

success in school (and few acquired abilities are more fundamental to life opportunities) than reading and understanding what is read.

Unless there is a solid foundation, laid down early, students face a long, hard struggle to gain what they should already have. Far too many do not succeed in that effort. All teachers must be capable of finding the student's level of literacy development and raising it, or early literacy gains can be lost. The most critical moment comes early, in Grades 1 and 2.

Basic literacy is not complete by the end of Grade 3, and the ability to read and communicate effectively is acquired and enhanced over many years. If students do not continue to develop their abilities to think and to read, their early learning becomes entirely inadequate.

We should understand literacy as the ability to speak, listen, read, and write well enough to deal with any situation in adult life requiring this most fundamental competency. Becoming literate involves expanding the oral language children bring with them to school (vocabulary, sentence length, grammatical structures) and enabling them to use printed language as effectively as spoken language.

While the public tends to take speaking and listening skills for granted because, unlike reading and writing, they begin to develop long before school begins, employers and educators know that the ability to take direction from the spoken word and to communicate clearly by speaking must also be developed very significantly long after childhood. In fact, one of the least understood and most basic realities about becoming literate is that it is closely tied to experience in communicating orally. That is precisely why early school success depends so much on the home environment.

Furthermore, development of oral language and development of cognitive skills are closely tied: we need language to think with, and it develops first as spoken language.

Nonetheless, it is high-level literacy – being able to read and write at the level of a well-functioning adult – that tops everyone's list of what students must ultimately achieve in school.

Being fully literate now means acquiring technical literacy. The spread of information technology has made the ability to read technical manuals and directions increasingly important. Historically, this kind of reading has been missing from language and literature classes, being relegated to the special technical classes in which only a minority of students enrol. However, it is increasingly clear that all learners and workers require technical literacy. Even those for whom literacy was once not considered necessary are becoming more dependent on various kinds of information technology – for example, the office janitor who pushes a mop along a hallway now finds it essential: the cleaning fluid at the end of the mop comes in containers with vital information on use, storage, and disposal, as well as on health and environmental hazards.

The material presented to students in language and literature classes beyond the primary grades must include more non-fiction in general and, as youngsters progress into adolescence, more technical literature.

> In other words, the more education U.S. students have, the less likely they are to be able to navigate through the world of consumer technology. Those with master's degrees ... might as well be functionally illiterate ... in other countries, people with high levels of education were most adept at reading technical manuals ... Students don't graduate from high school in the industrialized nations of Europe and Asia today without the equivalent of four years of technical reading and writing.[4]

Teaching "literacy skills" does not stop once students have learned to read and to write; we move them from literacy to literacies, which we describe as higher levels of competency in communication and such other basics as problem-solving, analytic thinking, and the ability to learn collaboratively as well as individually. These will continue to evolve, not only throughout the school years, but throughout life.

We suggest that the expectation of literacy attainment for all children (excluding a very few who have serious learning handicaps) by or before the end of Grade 3 should be so strong that it constitutes a "literacy guarantee" to parents.

Once children have "broken the code," they have acquired the basic tool for further intellectual development. While literacy is not a prerequisite for critical thinking or even for intellectual brilliance, its lack seriously handicaps any student. Without literacy, group instruction is inevitably slower and more painful. And the reality is that children who do not acquire functional literacy early rarely overcome the serious disadvantage that their handicap imposes in school and in life.

Recognizing this, parents express great concern about the acquisition of literacy and numeracy. There is a strong public feeling that, in the early school years in particular, these fundamental skills must take priority over any other curricula and that teachers must be able to show parents the level of literacy their children have attained in a way parents can understand and support. We agree.

We understand why no issue engages parents more than this. But we do not usually find the long media debates about how children should be taught to read, or at what age a particular landmark should be reached, helpful or enlightening. The debate about how reading should be taught – the "phonics versus whole language debate" as it has often been phrased – has obscured, rather than clarified, the main issue, which is how solidly all or almost all children are learning to read.

At the present time, most children are able to read and write at an appropriate level by the end of Grade 2. But this is truer of some groups than others, depending on parents' education, immigrant status, and other circumstances. We expect that, if first-rate early-years education is available and widely utilized, the gap between more and less advantaged groups will shrink very considerably: that 80 percent or more of all children, regardless of background, will be able to read and write at the age-appropriate level by the end of Grade 2, and that all students, excepting only those with serious learning problems, will be able to do so by the end of Grade 3. We define that as a school system which, from the beginning, is both excellent and equitable.

Earlier education should mean fewer children having difficulties in Grade l, and more moving smoothly into reading. Some who have been in early education will already have received the help they need, and those who have reading-related difficulties in Grade 1 must be identified early.

Any child who might otherwise be left behind should quickly receive in-school, appropriate help, before or very early in Grade 2. This should ensure that nearly all students will be able to achieve the reading, writing, listening, and speaking outcomes specified as appropriate to the end of Grade 3 by then. Increasingly, with early education, those outcomes will be reached by the end of Grade 2, although some "late bloomers" may require longer to attain literacy.

In fact, we suggest that the expectation of literacy attainment for all children (excluding a very few who have serious learning handicaps) by or before the end of Grade 3 should be so strong that it constitutes a "literacy guarantee" to parents.

However, if that guarantee is to be made in good faith, parents must acknowledge that they have a part to play. It is essential that they act on the advice and information that must be forthcoming from educational authorities, provincial and local, concerning the importance of talk and print (in the language used at home) to children's lifelong learning capability.

Just as schools must reach out to parents with borrow-a-book programs, family literacy programs, and other home-school literacy links, parents must take up such invitations enthusiastically.

Although there is controversy on the subject, educators do know a great deal about teaching children to read, and the importance of including a variety of teaching methods. Balanced reading programs include both phonics and "whole language" or meaning-based approaches. (For a brief discussion of the issue of phonics in balanced reading programs, see Chapter 6, where the topic is mentioned in the

success story

Flemington Elementary School, North York

As part of the school's efforts to encourage more reading at home, Flemington developed a video showing local students and their families reading together. The tapes featuring the "local stars" are available to teachers and other professionals for use with families, to other schools, and to families that have VCRs. Using neigbourhood students and families has made the message more real to the community.

context of pedagogical expertise.) This knowledge, however, is not always in the hands and heads of the people who most need it – the classroom teachers of young children. Sometimes, it is most familiar to only a very few teachers, those with special remedial responsibilities.

One phenomenon in Ontario education in the last two years has been the excitement generated by a remedial reading program called Reading Recovery, created in New Zealand, for children who show difficulty in learning to read in Grade l, and adopted by the Scarborough Board of Education. Well designed and well researched, it helps many youngsters; the program involves hundreds of hours of training for teachers, and is delivered one-on-one for 20 minutes a day over several months. Reading Recovery is highly structured, for both students and teachers, who monitor each step of the child's performance. While it does not solve every child's problems and its rate of success is not unique among remedial reading programs, it is certainly a promising intervention for many children.

But to begin with remediation is to begin at the wrong end. In New Zealand, teachers receive very rigorous training in how to teach reading before they teach their first classroom. Teacher training for literacy acquisition is by no means so extensive or intensive in Ontario. But good early education depends on teachers receiving thorough training in their pre-service education, or soon afterward. The ultimate prevention program is excellent teacher education. With it, a greater number of children will learn to read in the regular classroom, without expensive tutorial assistance, and the need for reading "recovery"/remediation will shrink.

There is no lack of technology for teaching adults how to teach children to read; the issue is delivering that technology to prospective and practising teachers, especially those in the primary grades. If that is done – if all teachers of young children know how to be effective reading teachers (and, crucially, if those teachers know how to teach parents and other volunteers, including older children, to be effective reading coaches) – schools can deliver on what must be considered a basic entitlement: that, with few exceptions, all children will be functionally and effectively literate in English or French by or before the end of Grade 3. (This issue is discussed further in Chapter 11.)

Among the learner outcomes statements for the end of Grade 3 in *The Common Curriculum* are the following, which describe what students will be able to do with written material:

- Understand a story and predict what may happen next;
- Learn new words through reading;
- Be able to interpret simple diagrams, charts, and maps;
- Be able to follow written directions;
- Understand the purpose of spelling and punctuation and use them correctly to make meaning clear.

The Common Curriculum must become real. The stated goals are realistic for most nine- or ten-year-old children, and they should and could be guaranteed almost universally. The relatively few exceptions will include children who are profoundly handicapped or developmentally delayed; those who are recent non-English or non-French-speaking immigrants; and some who enter school in kindergarten without oral fluency in the language of instruction.

We believe that parents should be encouraged to monitor their children's growing literacy, and that educators should welcome them as advocates for such growth. Parental expertise should be built, not dismissed. One way of doing so is for the Ministry of Education and Training, with the assistance of teachers and librarians, to develop a list of high-quality children's books for parents and teachers, books that are readily available in libraries and bookstores, and group them by reading level, according to age or grade. We suggest that public as well as school libraries organize books according to such categories, to help parents and children select books at the child's level.

Such a simple step would enable parents and children to select books together; parents could deliberately choose to read books to their children that were just beyond the child's independent reading ability. And parents would have a very good idea of their child's reading level and rate of progress, as a basis for discussions with the child's teacher.

The Ministry of Education and Training is in the process of developing standards for measuring literacy at the end of Grades 3, 6, and 9. We believe it is both possible and essential for almost all students to achieve at least an adequate reading standard, and for a large minority to reach a superior level. Clarity is required so that teachers and parents know what is expected. A high level of teacher competency in reaching and teaching the range of learners in any class is necessary. Such supports as intensive reading-tutoring programs must be provided to children who need them. As well, there must be a continuing commitment, provincially and locally, to assessment for improvement. (See Chapter 11.)

Finally, it is important to remember that literacy is not owned by language arts teachers. Once children have the foundation skills – reading, comprehension, writing, and communicating – these must be expanded by all teachers across all subject areas: literature is certainly not the only vehicle for developing literacy skills. In the arts and sciences and in technical studies, teachers have the right to expect students to be able to read for information and to write expressively and correctly. They also have the responsibility to help students develop these skills, no matter what the subject context.

The Commission's interest in fundamental literacy skills and on higher literacies as a primary learning issue is evident in our emphasis on language development as an essential for babies and toddlers in the curriculum of home and care, and the curriculum of the Early Childhood Education for three- to five-year-olds. In addition, Chapter 11 focuses on assessing literacy at the end of Grade 3, to evaluate students' progress and the way the educational system functions for young children.

Numeracy/problem-solving

Narrowly defined, numeracy corresponds to the narrow definition of literacy: a knowledge of the basics – the ability to compute, measure, estimate quantity, and manipulate numbers, in order to deal with the practical demands of life, including money. Just as the person who cannot read a manual or a newspaper, who cannot write a memo or friendly note, will be less employable and will suffer a certain loss of dignity and self-esteem, the person who is unable to check an invoice, understand a simple chart, divide a restaurant cheque, or estimate the cost of groceries is also under a genuine economic and social handicap.

As with literacy, we see the responsibility of the schools going far beyond basic numeracy to genuine mathematical literacy. As well as a solid grounding in simple arithmetic, this includes the ability to solve both abstract and practical problems efficiently by creating algebraic models to represent them; understanding and being able to use mathematical symbols; understanding formulae as generalizations about observed patterns; and being able to solve problems by applying patterns to them.

In this broader definition, genuine mathematical literacy gives a person another way of representing and understanding reality, a mode of critical and analytic reasoning that, in many situations, is the most efficient and effective one, and a language that is essential to the physical sciences.

While we share parents' wishes to have children acquire basic numeracy skills early in their formal education, we are aware that international math testing over the last decade suggests that most children in Ontario, like most of North America, need to have a better grasp, not of number facts and simple arithmetic, but of the language and conceptual basis of math, the patterns on which mathematical models are built.[5] When clearly instructed to do so, most students can show they have learned how to add, subtract, multiply,

observation

Evidence suggests that appropriate emphasis on problem-solving skills can and should begin as early as Grade 1.

By the end of Grade 3, almost all children should exhibit adequate-to-superior skills in fundamental mathematical operations and be able to apply them to age-appropriate problem-solving.

and divide; but they do far less well when they have to move beyond mechanical skill – for example, reading a problem that does not dictate the procedure to follow, and deciding what operations are required, and in what order.

Evidence suggests that appropriate emphasis on problem-solving skills can and should begin as early as Grade 1. Not only is this pedagogically important, it also ensures that, from their first experience with arithmetic, children will understand its practical value and the useful reasons for learning it. Thus, good pedagogy reinforces students' motivation as well as their competence.

Research into primary classrooms in Japan, Taiwan, and China suggests that the advantage children show on international tests begins early, and that teaching methods in those countries differ from our own in important ways. Although classes tend to be larger, teachers structure class time for maximum interaction with students. Such unproductive practices as long periods of individual seatwork, often in the latter part of the instructional period and without immediate feedback from the teacher, are much rarer in Asian than in North American schools. Students there frequently exhibit their work to teachers and classmates, and discuss how they arrived at their conclusions. Incorrect answers are treated as an opportunity for teaching, rather than as evidence of ignorance or a failure from which nothing can be learned.

There is a clearer focus on teaching for understanding, rather than for memorization and recall. Not only is there less uninterrupted seatwork, there is more direct instruction, more guided practice, more value placed on reasoning. Math educators in North America support these strategies and approaches, and it seems highly likely that, if teachers were better educated in the language of mathematics and in teaching that language, we could reasonably expect to see most young students exhibiting more-than-adequate proficiency in the subject. Our recommendation in this area concerns teacher preparation and on-going education. (See Chapter 12.)

In numeracy as in literacy, it is essential that all young learners have a solid foundation on which to build. The literacy guarantee must apply to numeracy as well; by the end of Grade 3, almost all children should exhibit adequate-to-superior skills in fundamental mathematical operations and be able to apply them to age-appropriate problem-solving.

The Ministry of Education and Training has developed standards that are appropriate for measuring the mathematical skills of young learners; it is essential that parents understand what is expected of their children, be given assistance in supporting their learning, and, through regular reporting, be kept aware of the clear indications of their children's progress in math. End-of-Grade 3 assessment (as recommended in Chapter 11) should bring no surprises, and should affirm children's acquisition of the basic skills, including an understanding of how to read and think about and solve math problems that derive from, and apply to, everyday situations.

Group learning and interpersonal skills and values

Although it is clear that schools have a primary academic function, there is a growing consensus that they must also recognize the importance of teaching and building on skills that facilitate learning, that enable groups to function harmoniously, and that offer a range of personal and interpersonal skills that are vital to children and adults.

In order to learn at school, students must be able to benefit from group learning situations. In classes of 20 to 35 students, very little instruction can be one-to-one, teacher-to-student. Although effective teachers are aware of each student and constantly monitor individual progress, most classroom learning occurs at the whole-class or small-group level. It involves listening as well as speaking, and is essentially interactive: students must be able to learn from others, from the teacher and from peers.

As well, students must be able and willing to learn in groups that are inclusive, respectful, and appreciative of individual and group diversity. Learners who cannot or will

"Rather than concentrating on manufacturing students who can compete in the global marketplace, we need to focus on developing students who can collaborate on the global commons."

Skid Crease, from his brief to Commission

voices

not accept as peers and colleagues persons who are of a different gender, colour, or background are clearly at a disadvantage and are limiting to others.

Furthermore, it has become increasingly obvious that these same interpersonal skills are essential in the workplace. At a minimum, learners/workers must be able to listen, to take turns, to offer help to and accept it from a wide range of others. Beyond that, it is clear that people who welcome the opportunity to learn from and with their peers have significant advantages both academically and in their careers. Many students in Ontario study in classrooms and schools that are richly diverse, as is the local society of which they are part. For these students, interpersonal skills are both complicated and enriched by cultural heterogeneity. Group learning and interpersonal skills in heterogeneous societies are simultaneously more multifaceted and subtler.

In general, Ontario's schools succeed in bringing together young people from extraordinarily diverse heritages to interact positively. Schools must continue to be strengthened in their role as centres for excellence in the development of a citizenry dedicated to equity. In a society as complex and diverse as ours, it is unwise to assume that individuals and groups will interact positively without some support, intervention, and teaching.

If we think of interpersonal literacy as being as much a part of the learning continuum as any other of the foundation literacies, we see tolerance as literacy in a narrow sense; genuine appreciation, welcoming and learning from diversity, is a higher-level interpersonal literacy. And, like other higher level literacies, it is not inborn, but is learned – or not learned – from parents, teachers, and peers.

Although home is the primary source of values, school is also an important setting in which they are learned. Teachers and schools teach values implicitly, when they encourage students to work together in groups, to help one another as tutors, and to engage in community service. Teachers often choose books, to read to or to be read by students, that reinforce such values as honesty, compassion, and altruism. Fortunately, many teachers also recognize teachable moments not only in academic but in interpersonal contexts. In the younger grades, teachers often use stories and games to elicit children's feelings about themselves and others, in order to make them conscious of the need for self- and mutual understanding.

While teaching values is a controversial and contested area – in a heterogeneous society, values differ among groups and among individuals – it is nonetheless true that making an absolute distinction between knowledge and values is creating a false dichotomy. The curriculum is a statement not only of what we want children and youth to learn; it is also about what we want them to feel for their fellow humans. Thus, we find statements of desired learner outcomes in language in *The Common Curriculum* such as: "By the end of Grade 3, students will use vocabulary that shows respect for people of both sexes and all backgrounds."[6]

Group learning and interpersonal skills are important for school success, but schools and teachers also recognize that students must be educated to behave responsibly; that education is for greater human good, not only for individual success and achievement; and that schools and teachers also have a character-building role to play in the lives of children. A "literacy of values" is part of a general cultural literacy.

The connection between group learning and interpersonal skills and values is also evident in the problems that arise, in school and elsewhere, between male and female students. If schools do not attempt to discourage harassment by peers, and, at the same time, teach good communication skills that can overcome barriers posed by gender (and by race, language, and culture), they lose an opportunity to influence young people positively. That loss may have serious implications for the relationships students have with others throughout their lives.

While it is difficult for schools to overcome negative forces that confront students elsewhere, it is essential that they demand high standards of behaviour from students,

success story

Bruce Mines Central School (Central Algoma Board of Education) has developed a peer mediation program in order to help reduce violence. Students in Grades 6 to 8 learn how to function as conflict mediators for their peers and for younger students. The staff say the program supports learner outcomes in the language, arts, and self and society curricula.

For example, the mediation process enhances development of language competence and thinking skills by creating the need to talk to a real audience, and by creating opportunities to use language purposefully. The fact that the peer mediation program is linked to curricular objectives both justifies its inclusion as part of a learning program and points to important and otherwise less obvious ways of evaluating its success.

while guaranteeing them safety from harassment and bullying.

While teachers must always model good communication skills and positive interpersonal behaviour, they should not be expected to be the sole deliverers of programs that mental health workers and counsellors, for example, are equipped to offer. Such social skills programs as peer coaching and group skills for co-operative learning, which are very clearly classroom oriented, are naturally taught in the classroom, most often by the teacher. But anyone with the requisite expertise can also deliver that kind of training in a classroom setting.

Because co-operative learning and peer and cross-age tutoring facilitate learning, it is essential to teach these to children who would otherwise quickly falter. Having one student tutor or coach another is one of the least expensive and effective ways of increasing learning, for both "teacher" and "pupil." Peers may be more effective communicators than teachers when a student is confused or doesn't understand: for example, thinking of another way to reword the teacher's explanation. Moreover, the student in the teaching role is forced to think clearly and logically, and often to face and fill previously unidentified gaps in her own understanding.[7]

As well, cross-age tutoring is a valid form of community service in the school.[8] As long as all students have the opportunity to help another if they wish (and cross-age tutoring makes this possible for almost all students), it is appropriate for teachers to describe and students to understand that this is service to others. As such, it can begin early and act as a child's introduction to that concept.

> Even closer to schools is the resource of students themselves. Peer tutoring, especially cross-age peer tutoring, has modest effects. But the effects are so consistent, and the effects in terms of self-esteem of both tutors and children tutored so visible, that one authority has labelled peer tutoring an "educational conjuring trick." Peer tutoring is very much more cost-effective in raising pupil achievement than many more widely-advocated strategies ... Implementation of effective peer tutoring programs requires goodwill and organization, but little else; it is a resource there for the taking.[9]

Another part of a life skills curriculum that should be delivered by an educator – though it can be a retired teacher volunteer – is the practice of studying: teaching students study skills, such as how to read texts for information, using tables of contents and section headings, and how to review material for tests, etc.

Students need these skills, which can be taught; it is essential that some youngsters not be placed at a disadvantage because they have not been taught at school what others may be taught at home.

It is essential that teachers know and can act according to principles of effective classroom management, and that they know how to help students learn effective interpersonal behaviour – working in groups and helping one another – as well as personal organizational and study habits. But they cannot be expected to single-handedly create and take sole responsibility for implementing and maintaining such important school-wide safety initiatives as anti-bullying or conflict mediation programs, although they must know how to support and reinforce them.

Teaching and learning interpersonal or life skills is an area in which community partnerships are absolutely necessary. Teachers need some essential strategies for promoting negotiation and problem-solving among students, in order to implement such processes as co-operative learning and peer coaching and as a vehicle for curbing anti-social behaviour in the classroom and on the playground. Most teachers have no special knowledge in these areas, and may not know what questions to ask, what strategies to teach, to get beyond negative and reach positive behaviour. Just telling a student to behave differently is rarely enough. Other expertise is necessary, either through more and different teacher preparation, or through the assistance of others with appropriate backgrounds.

It is essential that all teachers know how to model and teach negotiation skills and conflict resolution, as well as other social skills that enable students to work productively together, such as the listening and questioning skills necessary to learning in large- and small-group situations.

While, in theory, the best time to acquire some of this knowledge may be in pre-service, most teachers probably find it useful after they begin teaching, in the context of the school and the larger community. And while all teachers (one could argue all persons) need these skills, teachers of young children are able to establish a firm foundation in this area – an important responsibility.

There are people, including retirees, in a variety of disciplines – social work, mental health, youth work, counselling – who are able to teach and model these skills for teachers as well as for students directly. Involving community helpers, whether salaried or volunteer, also ensures that culturally different habits and customs are understood, and that this diversity is used to support such school-wide group and interpersonal skills as conflict mediation.

If schools are to be effective learning communities, the need for a safe and constructive social environment cannot be ignored. By themselves, teachers cannot develop and deliver programs needed to create that environment.

In order to be "fit" for learning, students must feel safe and secure at school, not threatened in the classroom, on the playground, or elsewhere by others who cannot control their anger, or who react to frustration with verbal or physical aggression. Prevention programs, whether school-wide, in small groups, or for individuals, are also part of interpersonal and group learning skills; schools must depend on the resources of the larger community to deliver a range of such programs.

Other interpersonal skills curricula that could be better delivered by community partners are such aspects of family studies as knowledge of child development as it applies to baby-sitting.

We have identified group and interpersonal skills as an essential literacy – like computers, communication, numeracy, and scientific reasoning. Therefore, we are calling on the Ministry of Education and Training to develop standards in this area, as a tool for measuring achievement and progress over time.

success story

Violence Prevention in East York Schools

R.H. McGregor Public School in East York is in year four of a highly successful violence prevention program. There are several components that make the program exemplary and highly effective.

First, there is a consistent school-wide discipline policy based on the principle that everyone in the school has the right to be safe, both physically and emotionally. In the playground, there are staff members and peer helpers (a team of Grade 5 students) who will assist students in resolving conflicts.

A school guidance program is another component of the violence prevention program. An elementary guidance curriculum was developed and initially taught throughout the whole school, and in subsequent years specifically targeted at the primary grades, with a view to preventing violence.

Parent programs are another component of the violence prevention initiative. Teachers increased the number of good-news phone calls to parents. The guidance teacher developed a series of parenting programs targeting specific age groups, and offered them each term. Parents were introduced to the idea of resolving conflicts in a win-win manner, and were provided with opportunities to share ideas and improve their own self-esteem as parents.

Finally, social skills group sessions, co-led by the guidance teacher and a child-and-youth worker from the Aisling Centre for Children and Families, are offered each term. Sessions are held weekly from 4:00 to 5:00 p.m.

We do not anticipate that elaborate testing or systematic performance assessment will be necessary – they would be artificial, time-consuming, and inefficient when applied here. Neither do we wish to see evaluation in this area left to chance, or neglected. We assume that the most effective way to assess student achievement in group and interpersonal learning goals would be to create a checklist, with learner outcomes stated as a continuum, just as they are in other areas (at the end of Grades 3, 6, and 9). This would enable teachers, on the basis of frequent observations of a student in class, in the hallways, and on the playground, to let parents and students know how well group learning and interpersonal skills are being developed.

At the class and school levels, teachers and administrators can use this data to decide what improvements are needed, what programs they and/or community helpers should be offering.

success story

W.E. Gowling School, Ottawa, opened in 1947 to serve the newly developed veterans' housing area. This public school is now a very multicultural school of more than 700 students from 47 different countries, from junior kindergarten to Grade 8 in the regular English program.

In addition to the daily free breakfast club undertaken by volunteer parents, a part-time social worker, a part-time psychologist, and a half-time multicultural liaison officer work in the school. Two more projects are flourishing at W.E. Gowling school: a "Children Learning for Living" project and a "Lighthouse" one.

"Children Learning for Living," funded by Health and Welfare Canada as a demonstration project, is a mental health promotion initiative of the Ottawa Board of Education. Its aim is to help children develop the skills and confidence to deal more constructively with their everyday concerns. A Child and Family Resource Centre, located in the school, is where small workshops with kids, or with parents, take place, as well as individual counselling and other initiatives. The Centre also has a playgroup/drop-in, and a toy library open to all.

The "Lighthouse" program, also located in the school, provides a variety of activities and courses for the whole community, after regular school hours, on evenings, and on Saturday mornings. Offerings include sports and general interest projects for both children and adults, at a minimal registration fee (to cover salaries and supplies). It is advised by a council made up of volunteers from the community.

Scientific literacy

Scientific literacy includes a basic understanding of key facts that explain natural phenomena, and of scientific principles of analysis, fundamental to critical thinking and to the design and execution of experiments. The need to develop in young children a sense of how to understand natural events and the world around them, and how to think scientifically and analytically – to look at cause-effect relationships, diversity and variation, probability and prediction, and to learn more about something new by comparing and contrasting it with the known – these are necessary and fundamental tools for thinking and comprehending, irrespective of the area of study or work. As well, early science programs can build on and enhance children's natural curiosity, which the school must nurture as an important intellectual force. Children can test their hypotheses and be rewarded with concrete feedback on their thinking.

Since 1984, when the Science Council of Canada issued its report, *Science for Every Student*,[10] there has been considerable growth in science education in the province's elementary schools. A report issued by the government in 1991[11] concluded that science education in Grades 1 to 6 had improved significantly over the previous four years. Science-related curriculum guides and resource documents were well received and apparently fairly well utilized.

Some science educators, however, feel that there is still too little science in elementary schools, and tie this to the relatively small number of university students who choose the physical sciences as their major field of study; that, in its turn, means that a relatively small number of teachers, especially at the elementary level, have a background in the physical sciences.

The possibility of a link between science in Grade 1 and in Grade 12 was the subject of a research study that followed children who had been given a course of science lessons in Grades 1 or 2, and a comparison group who did not have the lessons. Both groups were interviewed several times over the next ten to eleven years, and were asked questions about scientific concepts. The study probed their thinking about objects or events they had manipulated or observed during the primary science unit. Researchers found that the differences in favour of the science-instructed group were greater at Grade 12 than they had been at the end of Grade 1 or 2. They concluded that:

> The remarkable finding of this study is that a relatively few hours of high quality science instruction in grades one and two apparently served as a kind of advance organizer for many students for later instruction in science ... The data suggest that primary grade children have much science concept learning capability that goes unexploited in our schools ... it seems evident that much meaningful learning potential remains unexploited in our school children.[12]

There has been considerable interest and concern in science education at the middle elementary level (Grades 4 to 6). There are two obvious reasons why:

First, although Canada exceeds almost all countries in the world in the number of young adults enrolled in university, and ranks near the top percentage of adults with post-secondary education, it is very low, among developed countries, in the proportion of science and engineering degrees being granted. Many people consider this an economic liability for the country, and are concerned that positive attitudes towards and interest in science be developed early.

Second, there is a concern for excellence. International test results suggest that our elementary students are doing as well as most, but not better. "Overall, Ontario students appear to be achieving at around the international average in international studies, but significantly less well than students in British Columbia and Alberta."[13] Science educators are convinced that our students would show greater aptitude and interest in science if they had greater exposure to it in elementary school, and if it were taught in ways that were more relevant and interesting to them.

While the gender gap in math/science achievement and participation has decreased so substantially that it has essentially disappeared before the senior years of secondary school,[14] educators tend to agree that later participation in these disciplines would improve significantly if young women, beginning early and continuing through secondary and post-secondary education, were offered practical and human applications of the physical sciences. This emphasis on meaningful uses of science would seem to be what is needed for all young learners, not just for females, although its absence may have more impact on their long-term involvement. "Gender-fair teaching strategies for mathematics, science, and technology are good practice for all students ... [Programs] designed to encourage girls in the primary grades in the use of mathematics depend[s] on problem-solving activities all students would find useful."[15]

Science educators say it is necessary to present a more "authentic" view of science, to emphasize the science/technology/society connection, and to make clear the connections between scientific literacy and the lives and work of Canadians:

> Nothing motivates students to higher performance more than a sense that what they are studying is of real relevance and importance to themselves, their lives and personal aspirations. Science and technology are of enormous relevance to the lives and careers of all young people in school today. Yet too often the way it is taught fails to highlight this relevance. Science is seen as "just another school subject" rather than as the key to a door to rewarding work or exciting opportunity. The ways in which mathematics, science, and technology are taught need to be examined for these links to the real world of students.[16]

A 1991 survey of Grade 4, 5, and 6 classrooms in one Ontario region[17] showed that most teachers had never invited another person to make a presentation that was related to the science program. The need for community-based education, to enrich programs and make them real for students, extends to all areas of the curriculum.

The issues we have already raised about preparing elementary school teachers to teach math are also true of science. Many teachers take no university-level science courses, and even if they did, it is not at all clear that they would be much better science teachers: it is questionable whether science courses, as taught at the university level, are good models for teaching science to younger students or to anyone who is not a science specialist.

Preparing to teach science must combine preparation in science and in pedagogy (an issue that is dealt with in more detail in Chapter 12). Teachers need models for presenting curriculum in a more integrated and life-like way, connecting scientific concepts with meaningful examples drawn from everyday life.

We believe that scientific literacy is an essential for Canadians, and we urge support for teaching and learning science as part of the common curriculum through more and better science education for prospective teachers, adequate laboratory resources, and development of clear and high standards for student achievement.

Computer literacy

> [A central curriculum question is] ... how, in particular, to redefine the core curriculum in a situation in which technology is becoming part of the general culture, with all the implications that this has for the redefinition and acquisition of the basic competencies needed for the transition to adult life. Computer literacy, for example, has become part of the new basics in education.[18]

success story

Science Lighthouse in Renfrew County

One of the first recipients of the Prime Minister's Awards for Teaching Excellence in Science, Technology and Mathematics, Wayne and Carol Campbell, have made an outstanding contribution to the promotion of science and technology in Renfrew County.

The Renfrew County Roman Catholic Separate School Board operates 26 schools in Ontario's largest county. Delivering science programming in this large, rural county is challenging. In 1987 Carol and Wayne Campbell were hired as teachers to assist in the upgrading of science education at the primary and junior levels. This project was named the Science Lighthouse Program. Carol and Wayne's role in this program was not only to teach science but to model, for teachers, an approach to science education that stresses relevance, skill-building, and "hands-on" activities.

Teachers volunteer to take part in the program, and the Campbells visit their classrooms to deliver a science lesson on a topic chosen by the teacher. Teachers typically select those topics that they need some support in. Both the students and the teacher benefit from this approach.

Another mandate of the program was to increase the involvement of students in the Renfrew County Regional Science Fair. In 1987, very few students from Renfrew County's separate schools entered the regional fair. The Campbells organized the development of in-school science fairs, with winners moving on to the regional. Students from these schools took 25 category awards at the 1993 Regional Science Fair.

The Science Lighthouse Network is growing and evolving. In 1987, five volunteers took part; lately 75 teachers, from JK to Grade 11, and their students were taking part. The philosophy behind this program is being adapted and used at Bishop Smith Catholic High School in Pembroke. The Hila/Bishop Smith Research Centre will support R&D-type projects at a high school level and link students with area research scientists at Atomic Energy of Canada Limited and the Petawawa National Forestry Institute. Co-op students at the school can then be placed for work experience at one of these area research labs. With this support, these students should move on to take their place in Canada's science community.

When we speak of computer literacy as a foundation skill, we are referring to the ability to use the computer, equipped appropriately with CD-ROM player, modem, and phone or cable line, as well as output devices such as printers and plotters; to gather information; analyze, organize, and understand that information; and present it clearly and effectively.

Being able to use the central tool of information technology, the computer, is no longer a luxury restricted to a privileged few, or even an option for those growing up in today's world. Computer skills are basic, used not just in the workplace but in the home, for recreation and leisure, and in innumerable other ways.

Many people use computers to "draw" and "paint," adding graphics to work and play. And, as was evident on the TVOnline discussion on education, organized for the Commission, many people spend hours sharing ideas, asking questions, and seeking information through computers.

Aside from their pervasive influence on society, computers and other informational or instructional technologies, used properly, can have a transforming effect on learning and teaching. They can individualize learning and allow students to achieve excellence at varying rates of speed, and can give them access to far more information than what is contained in the school library.

Clearly, acquiring computer literacy cannot be left to chance, to unequal opportunities outside school, or to a few older students who may be interested in the inner workings of the hardware or software. If we do not commit ourselves to making all our students computer literate, we create a significant barrier to their in-school education and to their success as learners throughout life. All classrooms need computers, and all teachers and students need computer literacy. Unless teachers are equipped to guide their students into the world of Information Technology (IT), the remarkable potential of this new learning tool will not be fully realized, and students' opportunities to learn will be significantly curtailed.

Given that, the Ministry must establish clear outcomes for the computer literacy skills students must acquire as they progress through school. The Ministry must differentiate clearly between learning *with* computers and learning how to use computers. The machines must be used to help students learn how to learn, as well as to strengthen their

learning in biology, history, and instrumental music; but they must also learn to be comfortable, competent computer users, knowledgeable in harnessing computer power in their work and their play. These skills will give them an edge in the job market and will also give them the confidence to continue learning, to access information for their own benefit, and to make the best use of computers for personal interests.

The value of the computer, properly used as a tool for young learners, is boundless. That's why we have classified technology as one of the four engines that we believe are crucial to the reforms to the system that are now necessary. In Chapter 13, we discuss in detail the role of the computer in supporting learning and teaching, and (in Chapter 11) assessment, as well as in professional development for teachers.

"In any discussion of the educational system in the 1990s there are three things that always emerge as important issues: the information age, the impact of technology and lifelong learning. More information has been produced in the last thirty years than in the previous five thousand. The amount of information available doubles every few years. The fast-paced, rapidly changing world of technology today is making this possible ... Included in the concept of literacy for the 1990s student must be that of information literacy – that is, the abilities to structure, acquire, analyze, and synthesize information."

Ontario School Library Association

Voices

Core subjects

The core curriculum is that array of discipline-specific subjects to which students are expected to be exposed so that they can become educated, productive members of society. Typically, the core subjects occupy almost all the formal curriculum of elementary school; by secondary school, students are given more options, and the core subjects occupy much, but not all, their attention.

While we believe that the foundation skills underlie all learning, and at no time more than in the early years of schooling, we are not suggesting that the rest of the common curriculum be neglected, or be viewed as a frill. Nor are we suggesting that students delay their introduction to the arts, the social sciences, or broad-based technologies until after they have mastered the foundation skills. On the contrary, all of the core subjects of the common curriculum have an important place in the education of children, from the beginning, as a context for learning and applying foundation skills. Similarly, foundation skills are not finally acquired at the end of Grades 3 or 6; they must be built upon throughout the years of formal education, and beyond. Students certainly must continue to study literature even after they become literate, and mathematics even after they can perform the fundamental operations. Similarly, they must, over the years, acquire increasing knowledge and understanding of history, geography, the arts, and the many other subjects that comprise the common curriculum.

Whereas the foundations, as we described them, are generic skills that apply across all subject areas, the rest of the core curriculum is the knowledge base to which students apply those generic skills. We want students to develop communication, problem-solving, group learning, interpersonal, analytic, and computer skills within a content-rich context. One cannot argue a point about constitutional rights, judge an argument on municipal election reform, or analyze an experiment in biology without a base of knowledge of the subject. Thinking is always about something, and the more knowledge of the subject, the more developed and substantive the thought. Expert performance in a subject requires subject-specific knowledge as well as thinking and learning skills.

It is also true that students learn not only bodies of fact but specific and essential thinking skills within disciplines. Maps, musical scores, and diagrams are generalized ways of organizing information for understanding and recall, although they derive from particular subject areas.

Different subjects depend on different patterns of thinking: the way arguments are developed and evidence is organized differs according to subject. Well-educated people are able to read and understand across a range of subjects not only because they begin with a knowledge of content, but

summary

Some skills are grounding for further learning. We call them the Foundation Skills, and they include literacy and numeracy – the traditional basics – as well as the "new basics": group learning and interpersonal skills and values; and scientific and computer literacy. Curriculum guidelines should recognize the primacy of these foundation skills, and teachers, in the early grades especially, should emphasize and carefully monitor their acquisition by all students.

A child would have a very firm educational foundation if, by the end of Grade 3, he or she were well able to learn from print; could apply a basic understanding of arithmetic to solve problems involving construction, measurement, graphing, and so forth; knew the kinds of questions to ask to test an idea or an argument; and were capable of knowing how and when to ask for help, to offer help to others, and to work independently and collaboratively.

because exposure and familiarity tell them how to read and what to expect in different disciplines and genres.

It is important to note that the core curriculum may be delivered in a variety of ways (for example, with subjects segregated or integrated); differently at different age levels; and differently in different schools. What it implies is that, across schools and teachers, there is some common content and that assessment will be based on that content to create a degree of consistency in what is taught and what is learned.

While many teachers and parents are concerned that the curriculum may be crowded, and that foundation skills may be neglected or core subjects slighted, we did not hear any suggestions from the public about dropping any of the 15 subjects that are part of the common curriculum. Language and literature, mathematics, and science, each built on a foundation of literacy, are certainly part of the core curriculum all through school.

Few people disagree with the idea that computer literacy is also a fundamental part of core curriculum, and there were no suggestions that history or geography or art not be offered to all students. Each subject has many advocates, and a traditional and accepted place in the curriculum, although newer additions to the elementary curriculum, such as business studies, are less likely to be seen as part of the core curriculum.

There was more discussion in the public hearings and briefs of a few core subjects because people were concerned they might be neglected now or in the future. We comment on these briefly, reminding the reader that we are not attempting to include all core curriculum subjects in this discussion.

The arts: Dance, drama, music, visual arts

The arts are an integral part of any complete education; and they can and should be a very rewarding part. They are unique as a way of taking in information and as a vehicle for communication and self-expression. The point is that what is best understood or expressed in music, in movement, or in a drawing cannot be paraphrased in words. Students denied access to the arts are denied literacies and are impoverished as learners. All young people should receive at least an introduction to the arts in school. Art and art education will be a major source of fulfilment and the most developed mode of learning and communicating for some students; they will at least open an important door to the world for others.

In contrast to the idea that non-essentials might crowd out the fundamentals, many people connected with the arts argued that in a time of decreasing resources and increasing anxiety about economic competitiveness, budget cuts already affect delivery of the arts curriculum: there is no money to increase or even replace the inventory of musical instruments, no money to sponsor artists in the schools, no funds for trips to museums and galleries, and the like.

This is a concern for two reasons, we believe; first, the arts are part of the core curriculum and not inherently less valuable as part of a well-rounded education than any other subject; they are not "frills" and should not be treated as such. Not only does every student have the right to be introduced to the arts as an area of cultural knowledge, learners also need ways of making abstract ideas concrete. Like science, art is a hands-on way to apply mathematical and logical reasoning skills, explore ideas, and have the satisfaction of making something with what one has learned.

Second, art is the major route to learning for many students, their most developed "intelligence" and their best way of solidifying foundation skills. Drama, for example, has been shown to motivate students who otherwise avoid writing to write – and write well. Music is mathematical in structure, and some evidence suggests that it may be similarly related to understanding and describing spatial relationships. Saving money by targeting arts programs probably does a disservice to all students, and can impose a particular hardship on many of them.

"The 'global village' has become a reality and the arts provide a meaningful medium for communicating across language and cultural barriers."

The Arts Education Council of Ontario

Any school system that fails to open up the spirit of the arts to its students is unworthy of public support.

"We recognize the essential principle, celebrated and inculcated by the fine arts, that the best work we do is based on its own inherent value, a "something extra' that exceeds the requirements of mere utility ... The arts are the principal domain in which the faculties of invention and imagination can be cultivated by all students."

Faculty of Fine Arts, York University

Career education

An opinion, commonly heard by the Commission, is that schools often neglect the part of their mandate, beyond the traditional academic subjects, that other people consider important. This other function of schools involves making students aware of the kinds of work that are available, and of the personal attributes and educational preparation suited to a variety of occupations and careers. The point was frequently made that students are interested, from the youngest grades, in what adults do, and that this interest should be cultivated in a planned way; that would enable students, by the time they are beginning to consider their high school options, to do so on a very strong base of knowledge and information about the opportunities that exist, the preparation needed for different careers, and a sense of their own interests, abilities, and suitability.

Students and parents across the spectrum articulated their desire to see career and occupational awareness and preparation built into the curriculum, beginning well before secondary school. This desire was generally phrased, not as a request for specific occupational channelling or training, but as a perceived need to help students see the link between formal education and the world of work, and help them plan their courses in keeping with their interests and strengths, and the opportunities available. We believe this is a sensible notion, one that is well worth pursuing.

While education in the career planning sense may best be described as part of the core curriculum from Grade 7 on, it is clear to us that it must rest on an earlier and continuous exposure to the resources of the local community; it must be an experience-based program in which young students learn to think about their interests, aptitudes, and responsibilities within a community framework. For that reason, we view community-based education with a strong component of career awareness as an essential part of the core curriculum in elementary school beginning in the primary grades. Every zoo trip is an opportunity to learn from and about the people who work there: Who feeds the animals, and how did keepers train for their jobs? Who decides what plants to put in different enclosures, and what do they have to know in order to do that?

Community-based "career" education also means that students walk through the neighbourhood with local hosts, and visit such neighbourhood workplaces as libraries and fire stations. It means science projects that involve municipal employees: park workers, engineers, and others, and taking students to important natural sites nearby. Children come to school knowing that the most important resource in their world is other people. Schools must build on that knowledge systematically, so that, from a young age, children appreciate and value human diversity, understand that they can learn from everyone they meet, and have a sense of the role education and training play in the lives of adults in their community.

The complement of learning about what other people do and how they prepare for it is an understanding of one's own strengths and interests, of the learning or development needed to grow more competent in those areas. These self-appraisal and reflective skills are explicitly built into effective career-awareness programs.

Like all curricula, the career education component is developmental: it starts as a self- and community-awareness program (including an emphasis on community service), and, for adolescents, develops into explicit career education to help students make informed plans for their future occupation.

The school's community is as essential to this as it is to the interpersonal and life skills curriculum. It is impossible

opinion

In the absence of linkages to the working world, education becomes abstract and flirts with irrelevance. Unable to make the connection between what they are being taught and the world around them, many students tune out at an early age and drop out as soon as they have the opportunity. The more disadvantaged the student, the more this will seem a rational decision. The way to smooth the school-to-work transition is to make it as seamless as possible, by bringing the world of work into the classroom early in a student's school career.

W.E. Northdurft, 1989[20]

for teachers and other school staff members to meet all students' needs for exposure to a variety of learning environments. As pointed out in Chapter 6, the teacher's role is as general practitioner/diagnostician: knowing who can provide special help and when it is needed.

Teachers cannot be experts in occupations ranging from aerospace to zoology. They depend on local individuals, businesses, and agencies to support their students' search for diverse role models and hands-on opportunities for educational experiences – just as other people provide physical and mental health supports for students, recreational and library programs to supplement the school's facilities, and a host of other professional and voluntary services.

If school-level integration of services and resources is to be achieved, changes will have to be made in the way services are funded, in who undertakes co-ordination of efforts between the school and the community. As well, ways must be found to increase the use of information technology by teachers and students – of both sophisticated computers and simple telephones that must be available in all classrooms to all teachers and learners.

Community-based education also includes an early introduction to the value of community service and the need to take on that responsibility, with visits to homes for the aged, blood-donor clinics, and the like. This simple but fundamental expansion of the curriculum to include the human, the built, and the natural community around the school is the foundation upon which a continuous career education curriculum is built. This is true even though students will not define this aspect of community-based curriculum as career education until they are entering adolescence.

Because this kind of education has not been systematically developed and implemented in the past, teachers need numerous examples of community and workplace visits, and preparatory and follow-up activities, to support age-appropriate, community-based career awareness programs. We would hope that the Ministry of Education and Training would arrange for the preparation and distribution of such materials in the future. Teachers also need support at the local level to co-ordinate such a program, and we will recommend that support in Chapter 10, in the section on career education.

> But there is more to linking schools to communities than preparation for work. The essence of "environmental" education, of "global" education, of studying "history," "science," or "English," can be the means of coming to understand one's community in all its dimensions. There is too often a sense in which the school experience, while trying to prepare its students for a broad variety of experiences in life, merely abstracts them with something disconnected, irrelevant (to them) and alienating. If school is to be a place worth staying in (for a student) it must be a place where connections are made, where learning is meaningful and where people learn more about coping with the complex realities of their many communities.[19]

Some French-language schools and classes have the additional problem of lack of a local French-language community resource base; therefore, there is a need for long-term planning and organization for community-based learning when French-language resources are not as visible or accessi-

"Our young people need a liberal education to prepare them for their personal lives, for future training and professions. History is one of the best ways to get that liberal education. It trains the mind and touches on an extraordinary range of human experience. Our children deserve a fair chance to profit from that experience by receiving a healthy dose of history in the school curriculum."

Canadian Historical Association

voices

ble in the immediate society. In such a case, identifying community resources and creating networks may be done most efficiently through centralized planning, within a general language-planning policy of French-language schools, to ensure that French resources are available in the milieu, regardless of geographic region or concentration of francophones.

History

History, as many people reminded us, is more than a collection of dates and facts: like good literature, its stories provide repeated opportunities for wonder, questions, debates, clarification, and thinking through difficult issues to logical conclusions.

Teachers must give students the opportunity to relate the past to the present. In many cases, the conflicts that beset us currently are older than Confederation; students, who will be voters, must understand those links.

Canadian history, because it is the story of all Canadians, cannot be accurate without being truly inclusive; it must not ignore the country's history before European contact. It should be taught so that students know and appreciate the diversity at our core from then until now and are more tolerant of the stresses that inevitably accompany heterogeneity, and can consider those in the context of our common humanity and basic community values.

Besides being information-filled, history (Canadian history, world history) is also value-filled, and offers opportunities for thoughtful consideration of ethical issues. Students are eager to discuss notions of justice, altruism, and ethics, and such discussions are an essential part of an adequate education. While they must also occur throughout the curriculum – in literature, science, art – history is extremely important as a context for such exchanges because it is the reality of the human record, and the basis for thinking about who we are as a people, and what we want to become. Issues of majority rule, of minority rights, and of the rights of minors, of the way freedom and responsibility must complement each other, of community responsibility, of individual versus collective rights – all these are issues that educated people must have experience in considering and debating. All have moral and value-laden dimensions that should not be avoided but, instead, should be exploited as an opportunity to develop critical thinking that engages students' desire to mature, and to gain expertise and responsibility.

Official languages and international languages

Official languages

English as a second language:

English becomes compulsory as of Grade 5, as stipulated in the Education Act. (It will be recalled that anglophones must start taking French by no later than Grade 4.) In either case, initiatives for teaching the second language sooner, even as early as nursery school, are permitted.

The attraction of English and its dominant position as an international language are such that compulsory formal instruction in Grade 5, at about age 10, strengthens skills acquired in French, the weaker, less visible language in the surrounding society. It is felt that some 80 percent of school activity should therefore be conducted in French. Students can then hope to achieve a minimal level of competency in French, which is critical to good cognitive development, before learning the second language.

The fact that the elementary classroom teacher teaches all subjects, including English, may pose problems for second-language learning, particularly if the teacher has limited competency in, or expresses a negative attitude towards, the second language. The teaching of English by someone other than the classroom teacher may help the student to make a clear-cut distinction between the two languages used at school and in society, and thereby help to achieve additive bilingualism in the Franco-Ontarian community, that is, bilingualism that is firmly entrenched. A public information document clarifying the role and place of English in Franco-

Ontarian schools would promote a better understanding of the situation on the part of parents and other social interveners. We would point out that it is a specialist teacher other than the classroom teacher who teaches French as a second language in anglophone classrooms at the primary level.

The following passage defines the concepts of "additive bilingualism" and "subtractive bilingualism" as used by Franco-Ontarian educators and researchers.

> Additive bilingualism is stable and promotes social integration of the members of a community without devaluing their language and culture. Subtractive bilingualism is transitional in nature; it is a stage in the processes of assimilation and acculturation. Only additive bilingualism can ensure the long-term survival of a weak linguistic community. A broadened definition of additive bilingualism encompasses the linguistic, cognitive, affective, and behavioural aspects of language development; a high degree of competency in the mother tongue and the second language in both interpersonal and cognitive-academic communication; the maintenance of a strong ethnolinguistic identity and the development of positive beliefs about one's language, culture, and community, along with positive attitudes towards other languages, cultures, and communities; extensive and continuous use of one's mother tongue without diglossia, that is, without usage being confined to too limited a number of social functions.[21]

Like French-language programs, English-language programs must address the new school clientele. They must therefore include, based on local needs, beginners' programs aimed at anglophone students, and francophone students having no English competency; programs for students having moderate competency; and finally, programs for students having a high degree of bilingual competency. We feel *The Common Curriculum, Grades 1–9* addresses these various needs.

The other official language in anglophone schools:
French in English-language schools is part of the common curriculum, most commonly taught as a subject like any other, by a French specialist teacher. However, a number of English-language schools offer FSL (French as a second language) in an immersion program, in which students learn other subjects, such as geography or science, in French. Canada has been a world leader in developing language immersion programs for young learners.

At present, the only other languages that may be offered at the elementary level are American Sign Language (ASL) and La Langue des Signes Québecoise (LSQ), the English and French sign languages, which are permitted as languages of instruction for students with hearing problems; and Native languages, which may be taught as subjects.

International languages in Ontario schools
In addition to achieving a high level of language skills in both official languages, many parents and communities want their children to have opportunities to learn other languages as well, in both elementary and secondary school. The rationale varied among groups, but all had the same goal: to give their children more of a chance to become or remain bilingual or multilingual in a bilingual, multicultural country.

Some are most interested in the cultural benefits of learning another language, and argued that learning another language and about the culture from which it springs helps students appreciate other people, here and in other countries. Another language gives them access to the literary riches of other cultures (available to non-readers of that language only in translation) and to other windows on the world.

Others saw foreign language acquisition in terms of travel and personal enrichment. Slightly altering the old adage "When in Rome, speak as the Romans do," they suggested that their children would be better able to make their way in other societies if they have a grasp of the language.

Still other groups emphasized the importance of knowing other languages in this era of global business. In June 1994,

"That the Commission encourage governments and universities to support bilingualism in Canada and the learning of French, as well as one or two other languages, to better prepare students for the realities of an evolving global community.

Ontario Secondary School Teachers Federation (OSSTF)

voices

Northern Telecom made a significant grant to the University of Toronto to develop an Ibero-American program. (Ibero-America is defined as Spain, Portugal, and the Spanish- and Portuguese-speaking countries of Latin America.) The purpose is to develop closer business and cultural collaboration between Canada and Ibero-American countries.

Clearly, business sees the need to develop language skills among Canada's young people. As a trading nation, being able to speak the language of our trading partners is an advantage. Northern Telecom wants to do more business in Latin America and needs more people who can not only speak the languages, but have some cultural and business knowledge of those countries.

Still others are seeking ways to maintain the linguistic skills conferred on children by their heritage. In October 1993, the Heritage Languages Advisory Work Group presented its report to the Minister of Education and Training. The report focused on strengthening the International Language Program (Elementary),* which provides non-English/non-French instruction, primarily after school and on weekends, generally by non-certificated instructors. It should be noted that, while most students in the program share the cultural heritage of the particular language, classes in the program are open to all students, regardless of background.

Ontario benefits from the rich variety of linguistic abilities that result from the number of immigrants in the province. At a time of increasing global competition, we are told that the ability to speak the languages of other trading nations can make the difference between a deal and no deal. This is one reason for supporting the idea of having students add a language instead of trading one tongue for another.

The Work Group called teaching and learning international languages "a positive economic investment in our students." In addition, there is the evidence that strength in one language enhances proficiency in others. Thus, non-native speakers of English/French are likely to carry over language-learning strengths from their native language, if they continue to use it, into the language of the school. (See also the discussion of bilingual and immersion programs in Chapter 10.)

* The Minister accepted the recommendation of the Heritage Languages Advisory Work Group to change the name of the Heritage Languages Program to International Languages Program (Elementary).

The Commission strongly agrees that learning international languages, in addition to English and French, is valuable and should be encouraged. At present, there is virtually no international language instruction in elementary school and relatively little in secondary school. The International Languages Program (Elementary) is typically viewed as a frill or extra, rather than being made part of the formal school program, even in schools that extend the day so that these languages can be taught during school hours, rather than after school or on weekends.

We understand that, at the secondary level, the proportion of students taking languages other than French and English has decreased over the years. For example, of the more than 111,000 students who received their secondary school diploma in 1992–1993, 49 percent (55,000) had at least one OAC (a credit toward university admission) in English, and 18 percent (20,000) in French. But the largest numbers in all the other languages (such as Spanish and German) were less than one percent – in the range of 400 to 500 students. We are thus eager to see children offered the opportunity to learn an additional language while they are young and especially able to acquire native-like oral fluency.

Recommendation 6

**We recommend that the acquisition of a third language become an intrinsic part of the common curriculum from a young age up to Grade 9 inclusively, with the understanding that the choice of language(s) taught or acquired will be determined locally, and that the acquisition of such a third language outside schools be recognized as equivalent by an examination process, similar to what we term challenge exams within the secondary school credit system.*

Ontario benefits from the rich variety of linguistic abilities that result from the number of immigrants in the province.

The learning of a third language, like the learning of English, may present special challenges for Franco-Ontarian, French-language schools, for consolidating and enriching the spoken and written French of their young people. Franco-Ontarians and newcomers, however, have as much of an interest in learning a third language as do Ontario's other communities.

Because of the local variation in context for offering and learning a non-official language, we are not suggesting that all schools be required to do so, and we are not, therefore, suggesting that *The Common Curriculum* be amended to include one or another international language. We do, however, wish to encourage schools wherever possible to offer their students this wonderful opportunity, and we suggest that one excellent use of the local curriculum option that we are recommending be available to schools (see Recommendation, below) would be to offer an international language to all students in an elementary school (or to all students beginning in a particular grade).

Physical and health education

We heard a good deal from professional organizations, from parents and from students, about the importance of physical education; the most common recommendation was that all students should be involved in at least 30 minutes of continuous physical exercise daily. This is based on sound fitness guidelines, and we believe the idea should not be ignored. It is another area in which curriculum delivery should be shared with non-school staff, such as recreation workers and health agents. Daily or thrice-weekly physical exercise programs can be led by a variety of trained and volunteer staff who are not teachers.

Physical education, usually based on games and sports activities, has long been a part of public education, based on the widely held belief that physical exercise and exertion improve mental sharpness and the ability to concentrate. As well, society has become increasingly aware of the importance of exercise for health, and in that sense, a physical education program that includes regular exercise should serve as the basis for lifelong participation in health-promoting activities.

The Commission heard many voices raised in favour of expanding the amount of physical exercise in the daily program at both the elementary and secondary levels, including advocates who were particularly eager to have female adolescents appreciate the value of physical exercise as a source of strength and self-esteem and as a much healthier weight-control strategy than stringent dieting. They believe all students should be required to have daily physical exercise throughout their school career.

While competitive sport is a well-established part of school life, physical exercise for fitness is the universal need of young people (and adults). We believe there is abundant evidence that daily physical exercise is a strong component of health.

Recommendation 7

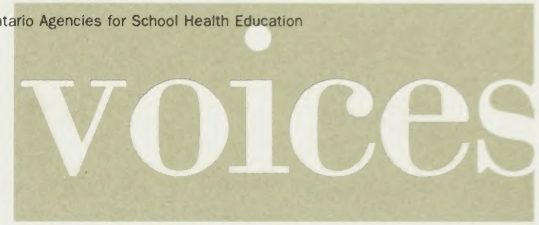
**We recommend that all elementary schools integrate a daily period of regular physical exercise of no less than 30 minutes of continuous activity as an essential part of a healthy school environment. Schools that have problems scheduling daily periods should, as a minimum, require three exercise periods per week.*

All schools should encourage students, parents, other community members, and health and fitness professionals to become involved in delivering exercise programs at school and in creating healthy schools. Students who choose to engage in regular sports programs or physical education classes at school could be exempted from exercise sessions.

While we firmly believe this policy will benefit all students, we are convinced that female students, in particular, will profit from lesser emphasis on competitive sport, traditionally very male dominated.

"The school systems are not responsible for meeting every need of their students. But where the need affects learning, the school must meet the challenge. So it is with health. Efforts to improve school performance that ignore health are ill-conceived, as are health improvements that ignore education."

Coalition of Ontario Agencies for School Health Education



As well, we believe that health education – drug and sex education and parts of the family studies curriculum – should be delivered by community partners on whom the schools can draw. Increasingly, as schools attempt to deal with such health crises as drug use, violence, and HIV, non-academic concerns have sometimes taken time away from the core curriculum and have used teacher time inappropriately. Although they are not part of the academic curriculum, these are essential areas of instruction for students, but they need not be delivered solely by teachers.

Both the life skills and career education components of community-based or partnership education are incorporated into a program known as the Healthy Schools model. Developed in Europe and North America, it now exists in a Canadian version that evolved in British Columbia, where the program is called "Learning for Living" and extends from the primary grades to the end of secondary school. It includes curriculum-based instruction, services for students, and an emphasis on a healthful school environment, i.e., a sound social climate as well as healthy physical surroundings.

We believe the model of a continuous, elementary-secondary emphasis on health promotion is a positive development in curriculum. We also note the emphasis on healthy environments that is the essential rationale of all public health programs, and that has recently expanded to include healthy communities.

Physical and health education can be seen both as part of the core curriculum and as components of a healthy school, one in which staff model, and students appreciate, the link between exercise and health. In addition to physical exercise and physical education, healthy schools emphasize a safe and healthy environment, community participation, with students and teachers taking responsibility for making health-related decisions.

The healthy schools initiative is an excellent example of education that can be community-based, rather than depending exclusively on teachers to plan or deliver the curriculum. It is the kind of initiative around which student energy can be mobilized, and it may be extended to include such activities as participation in community "runs" for charity, as well as in other kinds of community service, inter-generational programs, and diverse strategies for building students' experience in decision-making; it emphasizes the willingness to accept real community responsibilities.

Part of this ambitious agenda belongs within the core curriculum, and part of it can occur outside class time.

We believe that a comprehensive school health model, as recommended by the Canadian Association for School Health, and as exemplified by the Learning for Living Primary-Graduation curriculum in British Columbia, is a healthy direction for Ontario schools, and suggest that the Ministry of Education and Training work with appropriate professional groups and partners to learn from the B.C. experience, and encourage and support a healthy school emphasis within the core curriculum, that is strongly community-based and that incorporates mechanisms to facilitate collaborative planning and funding between the school system and public or private agencies concerned with physical and mental health.

Technology (broad-based)

Like art, broad-based technological studies, which challenge students to apply mathematics and science to materials and processes – to design and develop objects and techniques as ways to solve problems – are extremely important, and it makes good sense to include them in the elementary curriculum, from the early years onward. Broad-based technologies include: communications, construction, technological design, hospitality services, manufacturing, personal services, and transportation.

As part of the core curriculum, technology offers all students the opportunity to apply the problem-solving and reasoning strategies they acquire in math, science, and language to concrete problems of design and use of tools and materials. All students need a basic understanding of

summary

While we believe the foundation skills underlie all learning, all of the core subjects of the common curriculum – the arts and literature, mathematics and science, the social studies, languages, physical and health education, technology, and career education – have an important place in children's education, as content and as context for learning, applying the foundation skills. We want students to develop communication, problem-solving, group-learning, interpersonal, analytic, and computer skills within a content-rich context.

how physical materials and processes are produced and applied, and many learn best when they are given frequent opportunities to make the abstract concrete. This is most obvious for young learners (through Grade 6), but even students mature enough to deal with abstraction benefit – some very strongly – from testing their knowledge concretely and appropriately.

Students whose way of learning is more spatial than linguistic benefit especially from the inclusion of technological education in the core curriculum. But it is also true that technological education helps to develop literacy skills, in an applied and immediately relevant way, because it requires the student to read manuals, make lists, write requisitions, and give and follow oral and written instructions.

Continuity in curriculum and learning, Grades 1–6

The organization of elementary schooling supports the possibility of good communication and good relationships between students and teachers, and between teachers and parents. Because students in Grades 1 to 6 spend most of their time each year with one teacher, they and their parents can establish a relationship of personal knowledge and trust with her. In the same way, the teacher has a manageable number of students each year with whom she can quickly become familiar, both as teacher and diagnostician. But what is missing is continuity of supervision over the years, and continuous monitoring of the student's academic well-being.

While parents are often well aware of their children's development – the gaps that have been closed and those that have not, the gifts that have been noticed and exploited positively by one teacher but not by another – the school has no structure or process that guarantees continuous monitoring from teacher to teacher, and across the years. Too often, only when a child is in serious difficulty do teachers examine the student's record and begin to ask questions that should have been asked earlier.

Even when learning issues are addressed in a timely way, there is no assurance that next year's teacher will be aware of what has happened, and of how to build on it. We think it is important for all students and their parents to be assured that there is an educator, one person, who is keeping track over time of each student's progress.

We do not think that, at this early level, it is necessary for students to meet regularly with a teacher other than that year's classroom teacher. But we do believe that students, and especially their parents, should know that someone is aware of how the student is doing over time, and that this teacher (or principal or vice-principal), who is a kind of case manager for the student, can be contacted by parents concerned about an issue related to their child's progress, about which the current teacher may be unaware or insufficiently informed.

We do not consider it advisable for only the principal, or only the principal and vice-principal, to fulfil this responsibility: it would be difficult, except in exceptionally small schools, for them to do so well on behalf of many dozens or hundreds of children. If all certificated staff are involved, it is unlikely that any one of them would be responsible for more than 20 to 30 students, a number that makes it possible for the adult to know each student personally – particularly because the group for whom they have responsibility would change by only a few students per year.

Recommendation 8

**We recommend that, at the Grade 1–5/6 level,* an educator monitor a student's progress during the years the student is at the school, and be assigned responsibility for maintaining that student's record.*

The educator will ensure that each of the child's teachers is aware of that record, will be aware of and act on behalf of the continuity of the student's progress, and will be a contact

* Whether it is Grade 1–5 or 1–6 depends upon the school organization. In either case, we are describing the level of schooling at which students remain all or almost all of the day with one teacher, their "classroom" teacher. In some cases, this might be the situation through Grade 8.

Adolescents increasingly demand to be treated as adults: to make choices, participate in important decisions, and take control over their own lives, including their lives at school.

for parent(s) or guardian(s) when there are questions related to progress over those years. Excellent school transition programs for young students would include contact and communication between the educator who monitored their progress through Grade 5 or 6, and the educator who becomes responsible for their educational planning at the next level.

The transition to adolescence: Special consideration of the needs of learners from age 12 to 15

While there is no change in curriculum content between Grades 1 to 6 and Grades 7 to 9, there are significant changes in the way schools are organized and curriculum is delivered.

As well, there are important changes in the students. First, they must begin to consider where their interests and achievements are leading them, and to become more future-oriented in terms of secondary and post-secondary educational and career choices.

Second, they increasingly demand to be treated as adults: to make choices, participate in important decisions, and take control over their own lives, including their lives at school.

We suggest that there are some inherent contradictions between the way schools are organized and the needs of the young adolescent learners, and offer some suggestions for ways of meeting their needs more effectively.

Relational needs

Adolescence is "a period of rapid and uneven physical growth and unsettling emotional development. It is a time when most human beings experiment with the limits of acceptable behaviour and physical risk. Peer pressure is strong. Vulnerability is high."[22] And, at the same time that adults are sensitive to increased vulnerability among adolescents, the young people themselves are seeking increased autonomy.

Acknowledging these realities has led to considerations about ways of providing stability and, at the same time, of challenging students of this age. Some of their identified needs include a strong requirement for positive peer relationships, for caring adult relationships, for opportunities to learn what they do well, and to be recognized for that as part of constructing a positive self-image.

Finally, they need to participate meaningfully in the world around them, including the world of school, where so much of their time is spent.

As students move into adolescence, at age 12 or 13, they have to deal with warring feelings. On one hand, they are eager for more autonomy and, on the other, they feel increasingly self-conscious and easily alienated. They seek independence from parents and other adults, and closeness to peers; at the same time, they are anxious for adult approval and disappointed and angry when teachers and other adults fail to appreciate them or are not sensitive to their feelings.

While, at this age, students often yearn for the change and sense of maturity they associate with a large, departmentalized secondary school, there is evidence that such large and relatively impersonal institutions are not in their best interests, academically or socially. Large schools do provide economies of scale in terms of facilities and equipment, but research suggests they are not optimal learning environments for adolescents.[23] For this reason, educators increasingly urge that the size of schools be decreased in order to provide a sense of community, and a peer group that has some constancy.

When existing buildings are large and cannot be replaced within current budgets, as is the case in much of Ontario at present, the preferred strategy is to create what is called a school-within-a-school, a kind of separate house system. Students may take some classes (technology and lab classes, for example) outside their "school" or "house," but take most of their other core classes within their school unit. An ideal school-within-a-school is often described as between 100

observation

An additional strategy for creating a sense of community in a French-language school is a well-structured program of "animation culturelle" (activities that develop pride in, and a sense of belonging to, a pluralistic Franco-Ontarian community) integrated into the school curriculum.

Central to developing community within a Catholic school is the shared spiritual and sacramental tradition of the students and staff.

and 500 students, with a group of teachers attached to that unit to teach such subjects as language, mathematics, science, and social studies.

In these "houses," and in large, conventional junior-high and secondary schools as well, there are distinct advantages to having each teacher specialize in and teach two subjects, rather than just one, in order to provide greater flexibility.

An additional strategy for creating a sense of community in a French-language school is a well-structured program of "animation culturelle" (activities that develop pride in, and a sense of belonging to, a pluralistic Franco-Ontarian community) integrated into the school curriculum. This is particularly important because students in a French-language school in an English-language culture may feel ambivalent about their linguistic and cultural identity, and are likely to need, and will benefit from, an emphasis on cultural solidarity that creates mutual respect and support among francophone students and between the students and their teachers.

Central to developing community within a Catholic school is the shared spiritual and sacramental tradition of the students and staff. The school is a community of faith, and many Catholic secondary schools have chaplains and pastoral teams who focus the school's energies on liturgical events, retreats, community outreach, social justice projects, and the needs of the students themselves. For many students, these services and activities become an essential part of the school experience, and are frequently vehicles that help them cope with personal and home problems.

Another way of offering some stability and sense of community to students who move from class to class without any constant peer group is to establish a teacher advisory system: each teacher acts as advisor to a group of about 15 students, who meet together often – usually daily.

In a school organized on the rotary system (a different teacher for each subject), which often begins in Grade 6 or 7, teachers may have as many as 250 students on their register, and cannot possibly know all or even most of them individually. While there are certainly advantages to having specialist teachers – they can offer students more depth and precision in subject areas – it is not surprising that some students feel quite alienated and unnoticed in large, departmentalized schools. This situation is exacerbated by the credit system, which now begins in Grade 10, and replaces the stability of a fairly constant peer group with a different set of students for each subject.

No teacher, however well prepared and hard working, is likely to be successful with students if she does not communicate that they are important to her as individuals as well as learners. In earlier grades, where teachers have responsibility for a single group of students, that can and most often does happen, although it becomes more difficult as the number of students in the class increases.

But when teachers have hundreds of students on their roll, and see them for only 40 or 50 minutes a day – when students spend these brief periods with seven or eight teachers per day – the opportunity for real interpersonal contact and caring is seriously attenuated. At the very time when students most need to develop a relationship of trust with an adult other than a parent, something else is required.

Even in a modified rotary system, sometimes used for Grades 6 to 8, students usually have at least four teachers, and teachers have many more than a hundred students. (The modified rotary, however, has real advantages over full rotary: students can remain together as a group for at least half the day, and it can be seen as a helpful transition between the typical elementary and secondary structures, as they exist at present.)

Advisory or mentor arrangements create a role for teachers, not as either instructor or evaluator, but as advisor and advocate. Ideally, the contact between student and teacher is maintained during their years in the school, giving students and their parents an optimal opportunity to establish a personal and trusting relationship with the advisor.

While some of the advisory group meetings may be brief (a daily ten-minute "check-in" for attendance and announce-

ments), other, longer, regular meetings, usually scheduled once or twice a week, give students an opportunity to discuss issues of concern to them. As well, individual advisor-student meetings occur regularly, to provide an opportunity for student and advisor to share information and concerns, discuss the student's progress, and decide whether the student needs other kinds of support or whether teachers or parents should be involved in any decisions. The advisor functions as co-ordinator of each student's program, collecting necessary information from other teachers, and acting as a contact point with the school for parents.

Even when students have a teacher-advisor and a small advisory group with whom they meet regularly, they still benefit from a unit in which there is a real possibility that they will have face-to-face contact and familiarity with all members of the school community. We suggest that much smaller school units – ranging between 100 and 500 students – and teacher advisory programs create optimal learning situations for adolescents.

We want to create contexts that support students and give substance to the rhetoric of "communities of learners." We believe this will happen when there are smaller learning units, such as schools-within-schools, or house systems, that can create stronger bonds between students and students, between students and teachers, and between teachers across disciplines and departments.

Recommendation 9

**We recommend that the Ministry of Education and Training and the local boards of education provide incentives to large middle (and secondary) schools to create smaller learning units, such as schools-within-schools or houses.*

In addition to downsizing schools, stronger learning communities can be achieved by creating teacher-advisor relationships for students.

The teacher-advisor program has additional important potential for supporting a stronger, more informed involvement of parents in the education of their adolescents, at a time when youth often do themselves a disservice by trying to exclude parents from that process.

> As an absolute minimum, any serious attempt to reduce the alienation that is a major cause of dropping out must begin by providing every student with an assured and regular relationship with at least one caring adult within the school system.[24]

Planning needs

The need that many, if not all, adolescents have for a more personal relationship with a teacher coincides with what becomes, beginning in Grade 7, a strong need for educational and career guidance. As students enter adolescence and what is traditionally considered middle or junior high school, they become more concerned with their future, and with the choices they are aware must be made, beginning in three years, when the curriculum becomes more specialized.

At this point in their schooling, students will begin thinking in a more focused way about their interests, the subjects they want to pursue, and even the kinds of education, training, or work they might choose after high school. If they have been exposed to a multitude of community settings and work sites, through an active community-based, career-awareness program in their earlier years in school, they will be well prepared to begin this thinking.

Nonetheless, students and their parents need an informed person at school who will talk with them about the various options at the secondary level. The role is one of an educational advisor/career planner. Beginning in Grade 7, students, parents, and the teacher should be participating in a semi-annual review of the student's overall progress and experience to date, including both academic progress and other learning experiences.

The Ministry of Education and Training has announced that it intends to develop guidelines for a Comprehensive Achievement Profile, a cumulative record of a student's achievements from Grade 7 to Grade 9. We suggest that this document would better be termed a Cumulative Educational

observation

The process of creating the Cumulative Education Plan is at least as important as the final product. The value of such a process is that it demands that teacher, student, and parents regularly review what the student is learning and what opportunities and experiences she is acquiring, so that decisions about courses and futures are made on the basis of reflection and discussion begun years before any hard choices have to be made; this also allows many opportunities for exploring new alternatives.

Plan (CEP), and be viewed as an essential education- and career-planning tool, to be maintained through Grade 12.

In our view, the process of creating the CEP is at least as important as the final product. The value of such a process is that it demands that teacher, student, and parents regularly review what the student is learning and what opportunities and experiences she is acquiring, so that decisions about courses and futures are made on the basis of reflection and discussion begun years before any hard choices have to be made; this also allows many opportunities for exploring new alternatives.

To be of value, such a process must not be rushed or mechanical. The conversation cannot last for just five minutes, and participants must share a common understanding of its purpose. In order to develop and support this kind of program, teacher-advisors will need guidance from administrators or counsellors, who will have to review the CEPs periodically to ensure that the process is working.

The major purpose of the CEP is not simply to record student history, but to serve as a planning guide in the short and long term. What interests and talents has the student exhibited? What difficulties, if any, need to be addressed so that she can work towards a chosen goal, whether in Grade 8 or later? By the time the student reaches Grade 9, she and her parents will have been through this process four times. Thus, there will be a history of discussions about the student's interests and goals, and all parties will be reasonably prepared to make decisions about the secondary school program.

Recommendation 10

**We recommend that, beginning in Grade 7, every student have a Cumulative Education Plan, which includes the student's academic and other learning experiences, is understood to be the major planning tool for the student's secondary and post-secondary education, and is reviewed semi-annually by the student, parents, and by the teacher who has a continuing relationship with and responsibility for that student as long as she or he remains in the school.*

The CEP is part of a stronger student orientation, beginning in the elementary years, to career and self-awareness. It is also part of an emphasis we believe essential: the school's responsibility for continuous and purposeful monitoring of student progress.

It is conceivable that schools may want to merge the CEP conference with the end-of-term meeting with parents; in that case the teacher-advisor would have to be prepared to discuss the student's current marks as well.

We do not expect teacher-advisors to be career counsellors, nor do we intend that students should be completely dependent on subject teachers for career counselling. In Chapter 10 we make recommendations to support both teachers and students in this important area.

The need for choice, decision-making, and control

Key determinants of adolescent health may be defined as supportive environments on the one hand, and control over decisions and choices on the other. While adolescent students are likely to benefit from consistency and stability, this is the period when they ask for choice and control. One of the main complaints we heard from these and older students was that they had very little sense of control over their lives at school: decisions are made by others, and they do not feel they are acquiring experience that will equip them for decision-making later on.

Students are not often asked what they think of their program, or their teachers, or whether the school is meeting their needs. When they are asked, their response is generally thoughtful and practical, which suggests that, in addition to giving them satisfaction, consulting the students provides principals and teachers with real input for improving their schools.

Students told us that student councils in many schools are perceived as acting as social conveners only, arranging

dances and the like. They added that, as a whole, students do not see council members as representatives of the student body, and hence do not treat them as such. Clearly, if student councils are to represent students and to develop leadership, there must be some preparation for understanding the role of such organizations, not only for those who are elected, but for all students, and perhaps for staff as well.

Even when student councils do provide real leadership and decision-making opportunities, they do so for only a very few students. Most students will not hold office or become sports heroes. In the classroom as well in a wide variety of co-curricular programs, opportunities can be created for greater student participation and responsibility.

Most students, including those still in elementary school, appreciate the opportunity to make choices among topics and assignments. Even having options among test questions gives students a sense of greater freedom and control. By the time they are in adolescence, students regard the "contract" assignment, which puts control for acquiring, organizing, and presenting information squarely in their hands, as offering them real responsibility – which, with practice, they are probably quite able to fulfil.

Similarly, community-based education and work experiences, such as community service assignments, job-shadowing, and co-operative education, put students in adult-like roles, with significant responsibility and without heavy school-based supervision. The popularity of co-operative education among employers, as well as among students, suggests that most students who take these opportunities do not abuse them.

There are many ways of increasing students' experiences and opportunities for making choices and decisions in what they are learning and how, and in the organization of their schools. The essential component is that teachers and administrators understand the importance of treating students respectfully, as maturing young men and women whose opinions are worthy of consideration, as well as the importance of giving them greater control over the learning and social environment of their schools. Inevitably, a 14-year-old is immature in the eyes of adults; but maturity depends not only on age, but also on practice, and practice depends on being given freedom and responsibility. Students need the support of adults to become adult.

success story

UNITED WAVE

Community service offers another opportunity for decision-making and responsibility. A particularly impressive example is the program called United Wave, which aims to foster leadership and a sense of social responsibility in young people and which involves the United Way, Bell Canada, and four boards of education. Students develop proposals for short-term community service projects; those proposals are reviewed by peers, who allocate the resources for implementation. In 1992–93, for example, 16 projects in the North York Board were funded, most for a few hundred dollars each.

The students created such projects as friendly visiting and pen-pal programs for seniors; an after-school recreation and tutoring program for local elementary students; a bazaar to sell used clothing to those in need, with all proceeds donated to United Way; and a speakers series to promote AIDS awareness.

Students learn organizational skills, planning, money management, public speaking, proposal development, and community work. At the same time, they gain greater self-confidence, an increased sense of personal responsibility, better understanding of social issues, and an understanding that they have a role to play in responding to their own community's needs.

Adolescence is the beginning of the transition to adulthood, and any transition is best made gradually, not abruptly. To expect students to be docile, passive, and dependent until they reach 18 or 19, and then to become mature and self-sufficient the day they graduate is to undermine a smooth passage to adulthood.

We suggest that a very useful planning tool for senior elementary and secondary schools would be to a create a checklist of ways students could be involved in decision-making at both the classroom and the school level. Senior students, working with teachers and administrators, could create and field-test such tools, which could be used by student councils and school staff to develop and periodically assess the school's atmosphere in terms of student opportunities and responsibilities.

In the same way that a school uses results of a literacy test to better understand how student needs and curriculum fit, a tool that assesses the school climate can be used to improve the school, and it has the advantage of being one the students can "own" and use. Recommendations concerning the collection of information from students, by students,

summary

Excellent education for students must include caring and continuity. Every student should have one educator who is aware of her or his progress, and can speak knowledgeably about it, and on the student's behalf. This necessitates some different structures, especially once students move into a "rotary" schedule, where they see several teachers per day. As well, large schools must be scaled down, so that the school unit – the teachers and students with whom any one student learns – is small enough to work as a face-to-face community, where people have a sense of responsibility to one another, and where every student has a relationship with a teacher who helps the student with educational and career planning in a way that is documented and cumulative. As students mature, they continue to require concerned adult guidance; they also need much more experience in decision-making and leadership.

for the purpose of improving education at the school and board level are made in Chapter 15.

At the end of Grade 9, students must make a choice of which courses they will take the next school year. While this choice is not, and should not be, binding or excessively constraining, it is highly significant. Making the decision, which is the first step away from a common curriculum into a set of options that lead in different directions, is easier if the student and her parents and advisor have been examining and re-examining her interests and achievements since Grade 7, and if she has had significant opportunities – in and outside class – to reflect on her interests and performance, as well as to work in the community and to make decisions that affect her daily life in school.

One of our major goals in this report is to build a system that, from the early years, focuses students on the connection between themselves and the community of which they are a part, emphasizing work and career as important, not only to their own livelihood but to the role they will eventually play in their community. We want to help students become aware of the connection between what is learned in school and what is used in life so that, by the time they reach the end of the common curriculum, they will have a rich understanding of themselves and their communities on which to base their choice of post-secondary education and work.

In this chapter, we have described what we think is the essential content of and the essential supports in the school and community for a common curriculum – one that ensures that all children and young adolescents have the opportunity to obtain a solid and rich basic education that will equip them for increasing specialization at the secondary and post-secondary level. Our emphasis has been on the young learner, and the curriculum that will meet her growing needs.

In the following section we discuss some aspects of *The Common Curriculum* about which we heard considerable comment and controversy. These issues include the destreamed Grade 9, learner outcomes as a way of structuring the curriculum, the integration of subjects, and the opportunity for local additions to the common curriculum.

The curriculum as the basis of a learning system through Grade 9

As we explained earlier, a common curriculum from Grades 1 through 9 has recently been defined by the Ministry of Education and Training. This is an attempt to define learning as continuous over the nine years, in place of previous curriculum documents that usually separated primary (Grades 1 to 3) from junior (Grades 4 to 6) and intermediate (Grades 7 to 10). The continuum of learning across subject areas in *The Common Curriculum* is described by learning outcomes (descriptions of what students will know and be able to do) at the end of Grades 3, 6, and 9. We have recommended that, in addition, such outcomes be prepared for the end of Grade 1, so that the curriculum of Early Childhood Education flows into the curriculum that starts with the beginning of compulsory schooling.

Many people spoke to us about the common curriculum. While we heard little argument about the range of subjects to be covered, there was considerable concern about the specific document, *The Common Curriculum, Grades 1–9,* its content and format.

The Common Curriculum is a departure from previous practice in three major ways:

- It includes Grade 9, based on the decision that, like Grades 1–8, Grade 9 is now non-streamed, and all students follow the same program.
- It describes curriculum in terms of its intended results for the students, rather than in terms of teacher inputs.
- It describes curriculum in four "strands," rather than as more than a dozen separate subjects.

We briefly discuss each of these innovations.

While it is certainly dangerous to insist on outcomes that are easily measured, at the expense of highly valued but less easily gauged results, there is little value in statements that do not communicate clearly, to teachers or parents or students, what is intended, or how one would know if the outcome had been achieved.

observation

The inclusion of Grade 9

The public is divided on the subject of destreaming Grade 9. Those who oppose it and prefer streaming believe that students gain advantages when they are divided on the basis of their prior level of achievement, and are taught in more homogeneous groups. Others support destreaming in Grade 9, and believe that students will benefit from an additional year of common curriculum before they make a choice about their secondary program, which is, indeed, the purpose of destreaming. It is an attempt to respond to the high drop-out rate among students outside the university-preparatory (advanced level) stream and the fact that certain groups (defined by class and/or race) are under-represented in courses designed to prepare students for university.

We note that research offers little support for the idea that all or most students benefit from streaming in Grade 9,[25] and we accept the idea that postponing specialization until Grade 10 is likely to help more students than not. As well, we are aware that this is the most common type of curriculum organization in Canada.

The focus on learner outcomes

The quantity, quality, and effectiveness of learner outcomes as a way of organizing curriculum

The Common Curriculum outlines what students should learn by the end of Grades 3, 6, and 9, by listing the expected "learner outcomes" in each of four broad, integrated subject areas. The idea of focusing curriculum on what should be learned, rather than what should be taught, makes sense. Schools exist, after all, not to create employment for adults but to ensure education of youth. But neither, it should also be said, do statements about learner outcomes guarantee they will be attained. In other words, they contain no magic, and there is no reason to assume that learning or teaching will change simply because learner outcomes have been written.

Furthermore, while they may be helpful in communicating to teachers, parents, and others (including the students themselves) the sequence of learning that is expected, they may, if improperly or over-used, convey the false impression that all learning is perfectly sequential, which it is not.

While we heard little opposition to the idea of basing curriculum on learner outcomes, we did hear complaints about the quality and quantity of the outcomes specified in *The Common Curriculum*. Many people found them too numerous and too vague, and insufficiently clear for communicating to students, parents, and teachers the actual and concrete expectations of learners they imply.

While it is certainly dangerous to insist on outcomes that are easily measured, at the expense of highly valued but less easily gauged results, there is little value in statements that do not communicate clearly, to teachers or parents or students, what is intended, or how one would know if the outcome had been achieved. How will parents or teachers be enlightened by the statement that, by the end of Grade 3, students will "recognize the values presented in literature"?

We agree that the outcomes stated in *The Common Curriculum* are both too numerous and too vague. For example, there are 25 outcomes expected of students by the end of Grade 3 in reading. They range from the fairly specific and concrete ("use such features as the table of contents, index, and glossary to find information") to the very general and non-specific ("use their knowledge and experiences to interpret what they read"), and reflect no particular order or degree of priority and importance.

We believe that if teachers are to check their course plans against a blueprint of essential learning, and if parents are to understand what they can expect their child to be able to read and absorb, they need fewer and clearer guideposts – or, if not fewer, then certainly a presentation in which major outcomes are grouped, and examples are given. The same is true in all curriculum areas.

Major outcomes should be presented to parents as a fairly brief, descriptive list, which could appear on a report card, to give concrete indicators of a student's progress so

that a "satisfactory" in reading, for example, is broken down to tell the parent something about the particular reading activities and skills the student shows competence in.

While *The Common Curriculum*, revised as of December 1994, tries to address these concerns, it cannot fully succeed. Inevitably, there is a continuing tension between the need for clear, measurable learner outcomes and the need to ensure they are not overwhelmingly detailed and specific. It may be that learner outcomes are best expressed in fairly general terms, and illustrated with very concrete examples, used only as examples, and not meant to be exhaustive. Additional documents, such as standards (at least in foundation subjects) and course descriptions, will certainly be needed by teachers if they are to have sufficient guidance on what they are expected to teach and what students are expected to learn.

By itself, *The Common Curriculum* is insufficient for informing teachers and parents about programs. While it is sensible to make learner outcomes the basis of curriculum design, it is also necessary to indicate what major areas, topics, or skills might be emphasized in an annual program, in a way that is not restrictive, but permissive and helpful in choosing priorities among alternatives.

Teachers want and need some guidance about the elements of a subject to be addressed in order to achieve the learner outcomes described at three-year intervals. To argue backwards: if, by the end of Grade 3, a large number of children are unable to use such features as tables of contents, indices, etc., how will Grade 1, 2, and 3 teachers know how to improve the lessons to meet that target?

What is missing now is a set of curriculum guidelines that describe at least some of the sequences. Without such common guidelines, there is no assurance of consistency in or between schools in what is taught and learned. Curriculum guidelines are frameworks within which specific programs can be elaborated in each school or class. Existing provincial guidelines below the Grade 10 level are not congruent with *The Common Curriculum* and must be redesigned. This is not necessarily a long and arduous process; existing materials may be adaptable. But some work is necessary at once, to give teachers and parents some guidance, support, and reassurance.

We believe the Ministry of Education and Training should support the development of updated course guidelines based on the learning outcomes of *The Common Curriculum*, which will help teachers understand what they are expected to teach and what students are expected to learn each year. Such documents should encourage continuity from year to year, and avoid unnecessary duplication of effort at both the planning and delivery levels, and should help to create consistency both vertically (from Grades 1 to 9) and horizontally (within and across schools and boards).

The course guidelines must not be overly specific: if content is too closely prescribed, programs can become rigid, and teachers forced into a passive mode: as their opportunity to exercise professional judgement is eroded, their commitment to excellence is weakened. Guidelines that are appropriate and not overly detailed will encourage consistency without creating stultifying rigidity and an overwhelming concern for "covering" the curriculum that overrides the teacher's judgment about what students are learning, and how well they are learning it.

While teachers do not need a detailed user manual for each course, it should not be necessary for each teacher to invent her own course guideline. Instead, she should be free to supplement the basic guidelines by selecting unit topics or modules (detailed examples of which, in menu form, should be available as curriculum support documents or within the guidelines, as examples and appendices). The teacher's job is not to write curriculum, but to decide how best to present it, based on available resources and on her knowledge of the students' interests and prior achievements.

Parents (and students) also need course descriptions, in order to understand what is expected. These descriptions

should be brief, but convey enough information to give parents a picture of what their children will be learning, and so that older students – beyond the primary years – have an overview of the course. (Even quite young students can use a look at the year's plan as a very good example of preparing and organizing for learning.)

For example, this excerpt from a Grade 3 guideline called a "core knowledge sequence" describes the music component of the curriculum, Grades 1–3:

> In the first grade, students were introduced to three parts of music: melody, rhythm, and harmony. In the second grade, students studied melody in depth; in the third grade, they will study rhythm; and in the fourth grade, harmony. Students will also identify more of the musical instruments and their sounds. Children begin learning to read notes.[26]

An individual Grade 3 teacher might add some detail – for example, the instruments children will have a chance to play, the fact that they will learn songs from several countries and cultural traditions, and a list of appropriate stories and books about music and musicians they could read with their parents. This level of information would tell parents what their children are learning in music in a way that encourages parental conversation and involvement in the child's learning experience.

If parents and the general public can gain easy access to course descriptions that have clear learner outcomes, they can understand concretely what students are supposed to learn. Assessment in foundation skills, based on clearly stated standards, will tell them how well those areas are being learned. Public systems depend on public support, which, in turn, depends on public information. And it is much easier for parents to support and monitor a child's progress if they have a map. These will give teachers and parents a clear idea of the basic structure of each year's course or subject, and should include suggestions to parents for supporting their children's learning.

One important element, traditionally missing from curriculum guidelines, is a group of suggestions to teachers on helping parents enhance the work of the school. One reason many parents feel so frustrated about dealing with their child's school is that, when they ask how they can help their child at home, they may be told not to worry, because their child is doing well – suggesting that parents are superfluous to their child's learning and growth.

Parents should have a way of connecting to the child's school life, and should be encouraged to show interest. Parents' desire to help should be welcomed, not discouraged. Teachers must appreciate the value, for children, of the connection between home and school – an emotional value that has strong consequences for academic success.

If conventional curriculum guidelines have sorely neglected the home-school link part of the curriculum, so have courses designed to prepare teachers for their profession. Teachers need specific examples linked to specific curriculum pieces, so that they can give parents concrete, positive suggestions on what they can do at home as particular projects or topics are being covered at school. We suggest that course guidelines for teachers include suggested summaries for parents and students, which teachers can distribute (with any additions they wish to make) early in the year, at a first parents' meeting or another suitable occasion.

For example, using the description of the Grade 3 music curriculum above, teachers could include suggestions to parents for listening to music with their children, could suggest some children's music tapes available at libraries (including the school library) and book and music stores, could mention music-related television programs that parents could watch with children, could describe some simple rhythm and harmony games and tunes to play and sing together, and so forth.

"Everyone recognizes that all students learn at different rates. Why do we continue to make learning a function of time and expect all students in any course with finite time limits to be successful? ... [With] individualized learning where students are allowed to learn at their own rate ... drop-out rates ... are considerably less than those of similar courses where students are all expected to learn at the same rate."

Don Matthews, Humber College

voices

Recommendation 11

**We recommend that curriculum guidelines be developed in each subject taught within the common curriculum, to assist teachers in designing programs that will help students achieve the learning outcomes in* The Common Curriculum. *These guidelines should include concrete suggestions on how teachers can share with parents ways to help their children at home.*

Outcomes and time

Perhaps the single most significant rationale for serious attention to learner outcomes is that, if they are clear and precise, they can be far superior as an indicator of learning to amount of instructional time devoted to a subject. What is important about the elementary science curriculum, for example, is that, from it, students learn to recognize and understand certain natural processes and ways of asking questions scientifically – not that they have attended school 180 days in the year and been exposed to an average of 20 minutes per day of science instruction. Of course, without instruction and exposure they are very unlikely to learn; but exposure by itself is no guarantee of learning and, in fact, some very productive exposure that results in learning may happen outside the classroom.

Focusing on learner outcomes makes it possible to abandon the strict number of days or hours as a measure of "product" and allow for the reality that people learn at different rates. Then the teacher's and the school's commitment must be to monitor individual understanding and achievement very regularly, allowing those students who need it more time for learning; this can be done through additional tutoring and practice time during the school day or by making use of time during the summer.

By insisting that all students learn material within a set time, usually one school year, we have created a whole category of students who are seen as handicapped. Sometimes they are called slow learners, a term that is sometimes confused with learning disabilities. And we have tried, usually with little success, to create different, often separate, learning programs for each of these groups. Learning outcomes offer an alternative approach, one that suggests that learners differ, not categorically but along a continuum according to rate of learning, and that these rates vary by subject matter. A person may learn mathematics slowly but learn French at an above-average rate. Another person may be slower than average in all or almost all subject areas, but be quite capable of attaining the target outcomes if given more time to do so.

Making time a variable rather than a constant is most important when students are acquiring the foundation skills on which their future learning depends. If these are solidly acquired, students will be able to apply themselves to such subjects as literature, history, mathematics, and geography with some confidence. While learning rates will continue to vary, we would expect that students whose rate of learning is much slower than average would, with solid foundation skills, move closer to the average.

While it is essential to allow for variability in learning rate, it is also true that there is and will be a range of achievement. Thus, for example, some students will receive a higher mark than others, but everyone in the range may be performing at an acceptable level, with the highest achievers showing more than adequate mastery. The standards being developed in language and mathematics by the Ministry of Education and Training reflect that range, by describing several "standards of performance" for each major area of the curriculum. In mathematics, there are four standards or levels of performance, called "limited," "adequate," "proficient," and "superior"; students are expected to reach either the "adequate" or the "proficient" level.

If there was more flexibility in learning time, we could expect the range in performance to narrow to the degree that achievement at the "limited" level would drop to a very small percentage of students; some students would take longer to achieve at an "adequate" level; and those who were

achieving at the "proficient" and "superior" levels would move more quickly through the curriculum.

Many of the more traditional strategies for attempting to help slower learners have been largely unsuccessful. Repeating a grade, for example, is rarely associated with greater academic success; most often, students who do so do not seem to benefit after the second year, and are again at the bottom of their class, unable to keep up. Eventually they swell the ranks of the high-school drop-out population.[27] If a student has learned some, but not all, of what classmates have shown they understand, she does not need to be put back to the beginning, but needs help at the place she has reached.

Rather than putting her in a different program with a different and less challenging curriculum, where she has no chance of completing the same work as her peers, her best chances for success will probably come from being in that same program, with support and assistance, so that she can move with them. In some cases, additional catch-up time can be made available during the summer.

In a few schools, for example, all courses are broken into small units, meant to last ten months (one school year) for most students, but flexible enough to be compressed for students who can move faster, or to stretch longer (14 months) for slower learners or for learners who are slower in a particular subject area. Evaluation is frequent, as are reports to parents. It should be noted that schools organized that way are offering this level of individualization, monitoring, and reporting to all their students, not just to a few slower learners.

Another aspect of helping students learn more quickly has to do with lessening the likelihood they will forget what they have learned. Schedules that shorten the long summer break – whether they are year-round with month-long breaks twice a year, or extended school years in which students attend school 200 or 210 instead of 185 days – may have a significant impact, especially for young learners. There is some evidence that the long summer break is counter-productive for students who are already disadvantaged in terms of school achievement.[28] Some studies suggest that the "summer forgetting" phenomenon, which affects few advantaged but many disadvantaged students, might, by itself, account for much of the widening gap between the two groups in the later elementary years and beyond.[29]

Some summer programs have been implemented, such as the summer book-by-mail program in some downtown Toronto schools, which showed success in eliminating or narrowing the summer learning gap. While year-round schools are most often recommended as a way of avoiding the need to build new schools to accommodate growing enrolments (and, therefore, to save money), it is important to point out that the year-round school has positive implications for learning, particularly for disadvantaged students, and that this is particularly true in the early years, when students are acquiring foundation skills. For this reason, we suggest that in some circumstances the idea of year-round schools and/or extended school-year calendars should be given careful consideration.

Recommendation 12

**We recommend that the Minister of Education and Training amend the regulations to enable school boards to extend the length of the school day and/or school year.*

For students who can move more quickly through one or several subjects, we recommend that exams similar to the challenge exams at the secondary level (see Chapter 9) should be available. A student who shows, on such an exam, that she is ready to move ahead to the next level should be helped to do so, whether or not the eventual result is acceleration (skipping a grade).

Recommendation 13

**We recommend that the Ministry of Education and Training work with curriculum and learning specialists to develop strategies (based on sound theory and practice and enriched with detailed examples) for providing more flexibility in the amount of time available to students for mastering curriculum.*

success story

Lamoureux/Marguerite Bourgeoys School

There is an emphasis on individualized learning at this Ottawa-Carleton French-language elementary school. Individualization, small-group, and whole-class sharing of individual learning and understanding (la mise en commun), and frequent contact with the teacher for instruction and verification, are features of the program. Students use individualized learning materials and, through their activities, work to advance to the next unit only when they successfully complete the previous one. The teachers monitor the students' progress and evaluate their work as acceptable when they have met all requirements and the work contains no further errors.

When one activity is finished satisfactorily, student and teacher indicate this fact in the learning guide, and the students can then select a new activity in their "contract." Parents receive a weekly report on their child's progress. Students and teachers describe activities and evaluate effort and progress each week. Parents comment and sign this report.

Schools that want to move ahead on implementing aspects of these more flexible systems should receive incentives and be supported throughout the process; field-based monitoring and evaluation must be built in; and information on the process and the results should be quickly communicated to educators and the public, using electronic as well as other media for sharing and discussing the work as it progresses.

Curriculum integration

The Common Curriculum presents subjects as clustered, or integrated, into four strands: language; the arts; mathematics, science, and technology; and self and society. So, the learner outcomes for history, for example, are embedded in the area called "Self and Society," which also includes outcomes pertaining to geography, family and business studies, physical and health education, and other subjects.

There is little research on curriculum integration, especially with regard to its potential for improving achievement or mastery. The notion of curriculum integration derives from the fact that, outside of formal education, most learning is integrated; therefore, it is both a more natural and a more attractive way to learn. Nonetheless, we cannot assume, in the absence of research, that curriculum integration will prove to be more effective as a way of presenting information to students than the more conventional delivery of discrete subjects.

It is certainly true that a more integrated, less fragmented, curriculum was a hallmark of some of the schools that most impressed us as engaging their students in the learning process. The argument can be made that the more life-like the model for learning presented in school, the greater the likelihood that students will transfer the habit of learning to the rest of life. Students may find learning by topic (e.g., a unit on fish and fishing that includes science, math, and technology) more interesting and motivating than learning in discrete subject/disciplines (although there is the risk they will not realize that, while learning about fishing, they learned some biology, some geometry, and some environmental science, and will not be able to reassure their parents when asked what they are learning!).

Another logical argument in favour of integrated curriculum is that it organizes a disparate and extensive menu of courses into some reasonable framework; this makes it more coherent for both teachers and learners, and addresses, to a significant extent, the curriculum overload problem.

Finally, and perhaps most important, integration of subjects may promote, in teaching and learning, the practice of bringing together – synthesizing – different kinds of information when working on a problem. Being able to transfer knowledge, understanding, and skills from one situation to another is a very critical component of learning. At the simplest level, it makes the difference between being able or unable to learn from experience, and without it learners are severely handicapped. At a more complex level, where most learners function, it marks the difference between a basic and a more-than-basic level of understanding. The reader who can apply and transfer generalized knowledge from one situation to another is the level 4 or 5 reader (the "proficient" or "superior" one), rather than the level 3 reader (who is only "competent" or "adequate"). It is this latter standard of literacy that is too often not attained by our students.

Integration of subjects certainly does not guarantee this greater level of understanding, and is not essential to it; but integration may help promote teaching for the higher levels of understanding that should be the heart of the repertoire of all learners.

> The primary integration is of learning and life, the problem of compartmentalization of learning is a subset of the bigger problem of learning not being meaningful to the learner. Whether or not

> students integrate their learning in biology with their learning in literature is a good question. Whether they integrate their learnings in these areas with their daily thought and action and view of the world is a much more critical question. The focus of all our integrative efforts, therefore, must be the students themselves.[30]

Curriculum integration is intuitively appealing, and it has significant potential for making school-based learning more coherent; therefore, while we would like to see it supported throughout the common curriculum and beyond, we recognize substantial structural barriers to its implementation, in addition to the need for more and longer-term evaluation of its results. For one thing, it is not supported by universities when they pressure secondary schools to prepare students for the disciplines the universities recognize and teach – a pressure that is very effective in shaping secondary school curriculum.

As well, an integrated curriculum does not guarantee that teachers will teach the essential skills of each subject logically and cumulatively if there is no specific plan for doing so – if, for example, mathematics is entirely embedded in, and determined by, science and technology projects.

Because we are concerned about the potential dangers of losing a comprehensive and sequential view of learning in fundamental and core subjects, we have recommended that written standards be developed by subject in the foundation areas.

While the task of developing integrated curriculum that does justice to the various subjects is not impossible, it is not familiar or easy, and requires considerable expertise. A very real concern about integrated curriculum is that it takes considerable time, as well as expertise, to design it in such a way that it is not superficial and does not inadvertently omit crucial components in the development of bodies of knowledge.

> Integrated studies can degenerate into theme work and topics which contain no real challenge and involve students copying copiously from resource books ... Effective integration is secured according to agreed-upon high-level principles which bring different subjects together ... Discussion about, agreement upon, and planning around key skills, concepts and attitudes at the school and district level is exceptionally important in achieving effective integrated studies.[31]

While a great deal of extremely valuable professional development may occur when teachers in a school work together to build an intelligently and thoroughly integrated curriculum, it is unrealistic to expect that the time necessary for this process is available in many or most schools. In order to integrate subjects, teachers need an extensive menu of topics or themes keyed to the learner outcomes in the subjects to be integrated, sequenced appropriately. They need an abundance of good examples on which to draw. Otherwise, the amount of planning necessary for this kind of teaching will seem overwhelming, and a disincentive to trying.

Because we believe the teaching and learning of the common curriculum will be enhanced by the availability of many concrete examples of integrated curricula in the four "strands," at a variety of grade levels, we suggest that the Ministry of Education and Training, with the help of teachers and others with curriculum-writing expertise, create a "menu" of examples of integrated curricula keyed to the learner objectives of the common curriculum.

Inclusiveness of The Common Curriculum

As mentioned earlier, educators and the public assume that *The Common Curriculum* describes all the subjects and learning outcomes that are expected to be included in school from Grades 1 through 9. And many educators and members of the public fear there isn't enough time in the day to cover what is described. We have argued that time and crowding are not the main issues, but that focus and clarity of purpose are.

summary

The most reasonable basis for the organization and assessment of curriculum is student learning outcomes: expectations of what students of various ages and grades will know and be able to do. Teachers require curriculum guidelines that will suggest to them many paths to the achievement of these outcomes, and parents require clear summary statements of what their children are expected to be learning in school each year.

While there is one set of learning outcomes for all students, flexibility in how and when those outcomes are achieved is essential. Flexibility in the length and organization of the school day and year should be encouraged as a way of meeting the needs of more students; and schools and school boards should have some flexibility to modify the common curriculum by adding some local components and priorities.

We also believe that there should be room for local options within the curriculum of a school. We recognize the importance of local priorities – schools and communities with an interest in seeing young people become more involved in environmental issues, or in community service; the desire to ensure that students have more understanding of, and exposure to, local government or to local artists and writers; a school being distinguished by the special emphasis it puts on science or computers or Native studies. Such local priorities can be addressed by allowing up to 10 percent of school time (the equivalent of one half-day per week, or one full day biweekly) to be devoted to subjects that are outside of, or represent an expansion of, the common curriculum.

The local option component would be part of the school's program, subject to the same guidelines regarding curriculum and monitoring as any other part. It would be necessary for the Ministry of Education and Training to provide criteria of acceptability; local proposals would have to conform to these in order to be approved by the Ministry. But the idea is to enable school communities to be able to articulate their own special interests on behalf of their youth, in a partnership between parents and educators.

Recommendation 14

**We recommend that local schools and boards be allowed to develop and offer programs in addition to those in* The Common Curriculum, *as long as those options meet provincially developed criteria, and as long as at least 90 percent of instructional time is devoted to the common curriculum for Grades 1 to 9.*

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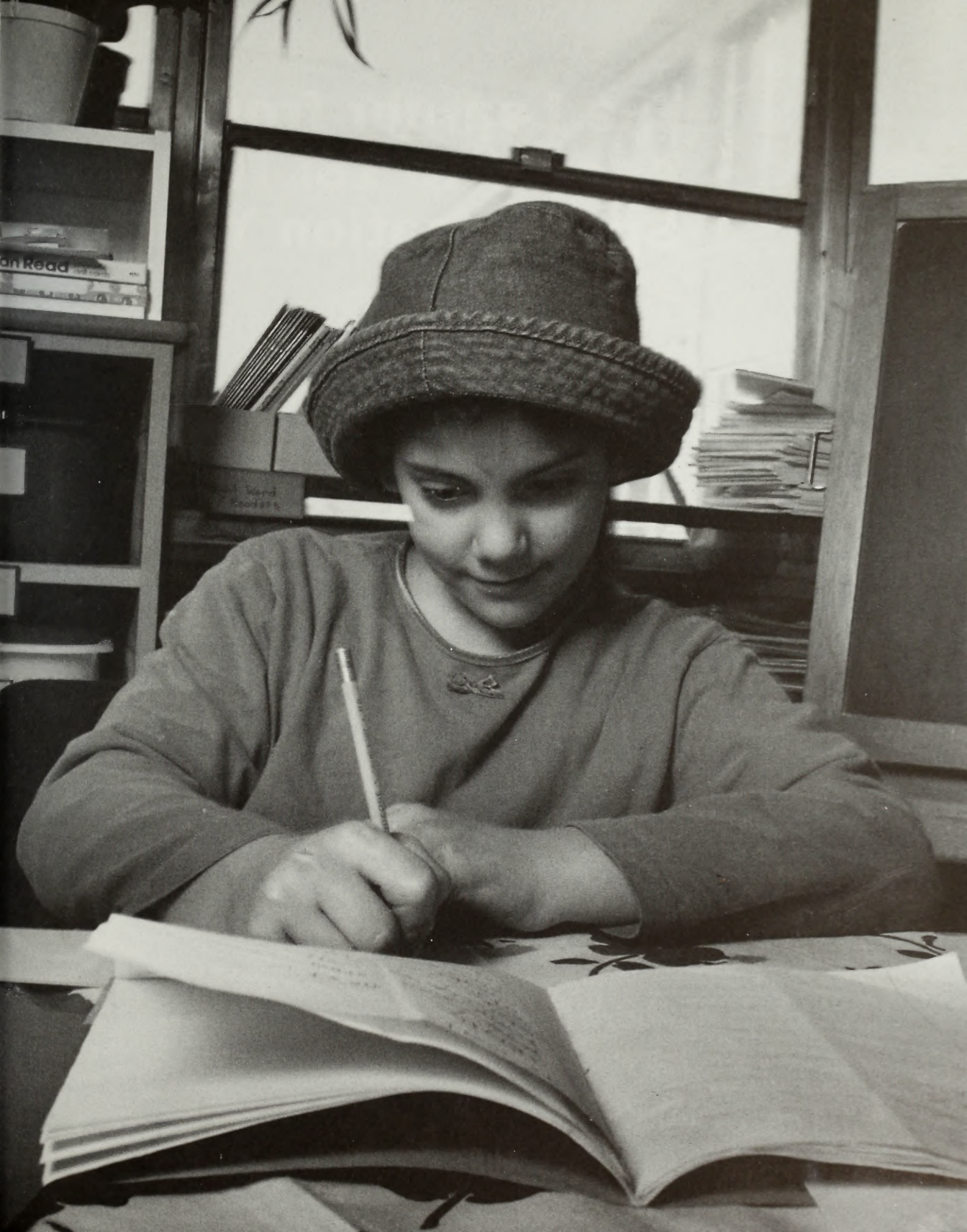


9 The Learner from Age 15 to 18: The Specialization Years

It is our hope and expectation that, were the kind of system we have described in place for young learners, the more specialized program, beginning in Grade 10, would rest on a very solid foundation of learning skills, subject matter, knowledge of community and self, and on exposure to a large number of work settings. By the end of Grade 9, students would be ready and eager to commit themselves to some specialization, with a view to a post-secondary career; education from Grade 10 on would be a mixture of further general education and opportunities for specialization, and would help students make choices based on their sense of future possibilities.

In the preceding chapters we have been building a learning system that begins between the ages of 3 and 6, and continues from age 6 to 15, using a single curriculum that occupies at least 90 percent of all students' school time. We have emphasized what we call literacies, defined as the ability to read, write, reason, and think intelligently across a wide variety of subject areas.

We have also placed a high value on a learning system that is focused, purposeful, challenging, and intellectually rewarding. We have defined what we think are the foundation skills, which should be strongly emphasized in the early years of the common curriculum, especially from Grades 1 to 6. We have suggested a curriculum that is centrally developed, and detailed enough to provide consistency across schools and teachers without overly constraining the teachers and the communities they serve.

As well, we have described and recommended ways of assuring that students are well looked after individually, and that their progress is regularly monitored over time. We have urged that, from the time students enter adolescence, they, their teachers, and parents pay serious attention to academic and experiential preparation for post-secondary education and for work. We believe that, were such a system in place, students would be further advanced at an earlier age than is now the case: that a Grade 7 student in such a system would have the skills and knowledge more closely associated with today's Grade 9 student.

The same emphasis on essential literacies, on challenge and rigor, and on coherent programming, must inform students' education after the common core curriculum years. As well, the concern we have expressed about support for students' personal, social, and educational/career planning in early adolescence is as much of an issue in the student's later years. Smaller school units, teacher-advisors, and support from career education specialists are important to 15- to 18-year-olds as well as to youngsters of 12 to 14, and we envision a system in which all adolescents find their education organized with these concerns in mind, as well as the concern for their development as responsible decision-makers, with a strong voice and choice in matters that directly concern them.

We envision a school that, from Grade 10 on, encourages specialization by interest, but does not separate students into disparate groups. It permits considerable flexibility, while depending on small school units and teacher advisory groups to give students a sense of belonging and of a peer group.

While we are satisfied that our argument for this kind of schooling is logical – that a more focused, challenging, supportive, and common educational experience through Grade 9 will prepare students for a greater degree of specialization, combined with a solid core of general education at a higher level – we have no illusion that such a restructured secondary system will satisfy everyone.

There is, after all, no part of the educational system more fraught with controversy and disagreement about purpose and structure than the secondary curriculum. It has always been thus – and not only in Ontario: the same issues about the nature of post-elementary education are debated everywhere. A move to earlier specialization is applauded by some, but heartily rejected by others, who see quality and equality in a common core of courses to be taken by all

success story

Student Participation

The Stormont, Dundas, and Glengarry Public School Board is embarking on an ambitious program to prepare its students for the 21st century. The report of the Vision 2000 Committee, "Towards Tomorrow," highlights several expectations for students. One key area is student involvement, e.g., "Student leadership opportunities should be provided through student organizations" and "secondary students must show evidence of community and/or school involvement." In order to implement this document and the key student involvement/empowerment aspects, several student volunteers were hired to develop a Manual for Student Involvement in Secondary School during the summer of 1994.

students. On the other hand, specifying a large number of required courses for all students is resisted by students who want more choice, and by those who feel that students' interests and talents differ too much for them to be bound to a common curriculum.

In addition to disagreements about specialization and choice versus general education and a common course of study, there is the ever-present controversy about the necessity of providing different types of courses, streams, or programs in response to the varying levels of achievement, ability, or motivation that characterize any large group of students, and meeting the needs of both university-bound and other students.

As a group, we Commissioners are a microcosm of the diversity of public opinion and the desire to satisfy several different and sometimes conflicting agendas for students who are 15 or 16 and older. Our plan, which is a real compromise between the general and the specialized, and between a common core and the need to accommodate differences, is necessarily complex, and will inevitably leave many educators and lay persons dissatisfied, either because it does not wholly endorse the option they prefer or because it is less simple, less clear, and less well-defined than they hoped.

We do not apologize for the fact that it is a mixed, not a pure, solution. We believe that a system that attempts to accommodate the tensions within itself – however uneasily – is better than one that ignores those tensions. That it is complex cannot be helped: compromise based on honouring diverse, legitimate intentions and preferences does not result in simple solutions.

We freely admit that it will depend on others for more definition and clarification, and we acknowledge the inadequacy of both the time frame under which we have operated and the very significant technical expertise required to implement new programs in the specialized area of curriculum design and organization.

If the concept of secondary education that we are offering finds significant public support, its successful development and delivery will depend in very large measure on the technical skill and the good will of curriculum planners and professional educators.

In the following pages, we will first describe the existing organization of secondary education, and then offer a series of recommendations on its reform, aimed at creating a system that is more equitable and more successful for more students. We will make some suggestions concerning the content as well as the organization of curriculum. Finally, we will talk about the transition between school and post-secondary life as a complex one, one that is not always direct or unidirectional, and suggest ways of strengthening the transition for both young and adult learners.

The current context of secondary education in Ontario

In the 1980s, after extensive debate and consultation and after several secondary education reform committees had been appointed to respond to public concern about a program that was seen as too loosely structured and choice-driven, the Ministry decided that much of the secondary curriculum would be mandatory and uniform for all students. It replaced a "cafeteria style" curriculum menu that had been created, a decade or so earlier, as a reaction to the belief that the existing program was excessively rigid and restrictive. This is a perfect example of the cyclical nature of action and reaction that underlies so much educational reform.

The document that resulted from all the work of the early '80s is called *OSIS (Ontario Schools: Intermediate and Senior)*. It defines secondary school de facto as four to five years, beginning after Grade 8. The curriculum is defined by credits, with every course credit being earned through 110 hours of in-school work (except for co-operative education credits, which are a combination of in-school and work-site hours). Thirty credits are required for graduation with an

Earlier specialization or a continued common core of courses? How much choice to respond to different student needs and interests? Streaming or destreaming? How can more students earn secondary school diplomas?

Ontario Secondary School Diploma (OSSD); of these, 16 are specified and the other 14 chosen from a range of options.

If students complete most of the 16 specified credits in their first two years (eight per year), as teachers and counsellors have generally encouraged them to, they can choose many of their courses in the final two to three years. While it is quite possible for students to graduate in four years – the OSIS plan intended that – most students who complete the OSSD still take longer to do so, i.e., four and a half to five years.

In some cases, this is because students are working part-time or are repeating courses they have failed or in which they want to improve their mark (only the higher mark is entered on the record). In other cases, students complete more than 30 credits before they leave high school because they wish to pursue different interests; those who are going on to university want to accumulate high marks in the courses that are most important for admission, and take the Ontario Academic Courses (OACs) until they have the required minimum (six), with high marks in each.

Under OSIS, almost all courses are streamed – that is, offered at three levels of difficulty: as advanced (the university-qualifying courses), general, and basic. (The OACs are the exception: by definition, these university-qualifying courses are offered only at the advanced level.)

The purpose is to give all students the same choice of subjects and opportunity for success at whichever of the three levels of difficulty is suited to their ability and prior achievement. While one might expect an even distribution of students among the three levels, that is not what happens: because two-thirds of students entering secondary school want to go to university, they therefore choose all or almost all their courses at the advanced level, obviously because these are the only ones accepted by universities. Only about one in three who follow this sequence from Grade 9 to graduation actually enter university (because of the limited number of university spaces); some go to college, others to different kinds of private post-secondary training or directly to work. About 88 percent of students who begin Grade 9 in advanced-level courses complete their OSSD, although some switch and take some or almost all their courses at the general level before they graduate.

Just over one in four students begin Grade 9 taking general-level courses, and another 5 percent take mainly basic-level courses. In both categories there is an over-representation of children of working-class parents, while the children of professional and managerial parents are under-represented. (Many students in basic-level courses have not graduated from Grade 8, and have been transferred rather than promoted to secondary school.)

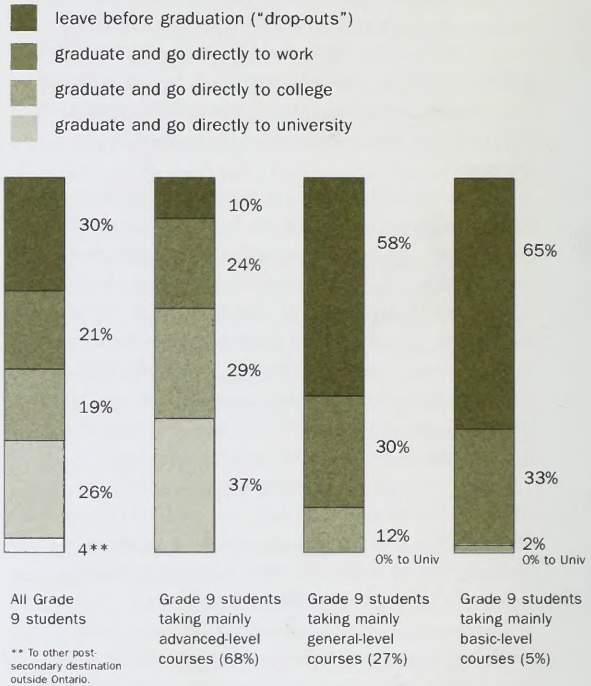
The non-completion (drop-out) rate for students from general level courses is 58 percent, and for those from basic-level courses it is 65 percent – about six times higher than for those in advanced level. The difference in both selection and retention rates makes it clear that the three levels are not equally appealing or equally satisfying. There is general agreement that one cause of the high drop-out rate among those enrolled in general- and basic-level courses is that they recognize that these courses do not lead anywhere.

Unlike the high achievement in advanced-level courses, the exclusive route to university, excellent performance in the other two levels guarantees nothing. They are not an exclusive route to college: colleges can, and often do, admit students who have completed the advanced-level/OAC course but whose marks were not high enough to qualify them for university.

> Only one in ten students who begin Grade 9 taking mainly general level courses enrol in a post-secondary program in community college; therefore, the students in this broad category cannot be encouraged to remain in school by holding out the possibility of a college or university destination as the incentive. Opportunities for strengthening the connection between career opportunities and secondary school programs must be enhanced.[1]

FIGURE 1:

Post-secondary destinations of Grade 9 students, based on 1993 estimates



*Sources:

1. A.J.C. King and M. Peart, *The Numbers Game* (Toronto: Ontario Secondary School Teachers' Federation, 1994).
2. A.J.C. King, personal communication, based on:
   (a) college and university enrolment statistics through 1993;
   (b) 1990–91 and 1991–92 secondary school enrolment statistics as reported to the Ministry of Education and Training;
   (c) Ontario Secondary School Diplomas (OSSDs) granted per year, through 1993.

Aside from university and college, there are very few post-secondary destinations or training programs to which students can go. Ontario has very few apprenticeship places, and no tradition of employers hiring inexperienced workers, intending to make a substantial investment in their training.

In fact, the only clear destination for secondary students who want one is university: only the advanced-level/OAC/university path is a clear, if highly competitive, one. The confused and confusing mandate of the colleges is part of the larger issue of unclear paths and lack of purpose confronting students who do not choose advanced-level courses.

While the colleges have recently examined their course offerings and the organization of their programs, their mandate remains unclear insofar as client groups are concerned – in our opinion, to the detriment of secondary school students who would benefit from having a valid alternative destination to university.

Figure 1 shows that, while 29 percent of students taking mainly advanced-level courses went to college, only 12 percent of those taking general-level, and 2 percent of those taking basic-level, courses did. Moreover, of the advanced-level students, the only ones who can reach university, 37 percent did.[2] Thus advanced-level students not only have a unique option (which they may or may not reach, but which only they can aim for), they also are much more likely to be accepted into college. Put another way, and adjusting for the high drop-out rates of students in basic- and general-level courses, the chances of high school graduates within each stream going directly to post-secondary education (college, for those taking general- and basic-level courses, college or

university for those taking advanced courses) are about 1 in 17.5 for students graduating with basic-level courses; 1 in 3.5 for graduates of the general level; and 1 in 1.3 for advanced-level course graduates. In terms of post-secondary education, there is no question about a differential pay-off for the high school diploma, based on course level, or stream.

It is clear to us that students in advanced-level courses have a double advantage: they are being uniquely qualified to apply to university, and are more likely to be accepted into college. Conversely, students in the other two programs have a double disadvantage, and it is out of respect and concern for them that we believe the college mandate should be re-examined and clarified.

Clearly, the organization of the curriculum according to three levels of difficulty, as set out in OSIS, was unsuccessful in providing a meaningful or equal route to post-secondary education and work for most students. It does sort students more or less effectively as far as university admission is concerned, but it clearly fails to provide most students who will not be going to university with feasible alternatives. One result of this situation – although not the only one – is the dramatically different drop-out rates between advanced-level students and those in the other two programs.

The efforts of some colleges in recent years to increase accessibility to a variety of groups must be acknowledged. One of the issues that must be considered as well is the literacy and numeracy levels of students who have completed general- and basic-level programs. Space providing, the likelihood of more of these students gaining admission to colleges would increase if they had the skills to cope with an increasingly demanding program.

Recommendation 15

**We recommend that the Ministry of Education and Training review community college education – its mandate, funding, coherence, and how it fits into the system of education in Ontario, including clarification of access routes from secondary school to college, and with special attention being paid to students who are not university bound.*

"College should be recognized as a legitimate alternative to a university education, even for the most capable students. Because the opportunities are becoming so specific, there are often few openings for someone with too general an education. College diplomas should be accepted as admirable, sensible goals for anyone, general or advanced."

Regiopolis/Nôtre-Dame École Secondaire, Kingston

voices

As well, colleges should be encouraged to implement appropriate recommendations from Vision 2000, the key directions document that resulted from a provincial consultation in 1988 and 1989.

In the second half of the last decade, educators and the public began to question the high school drop-out rate, and to look for ways of lowering it; that rate has become the source of considerable debate, and has driven attempts at reform, such as the destreamed Grade 9, and reactions against such attempts. The four- to five-year drop-out rate (the percentage of students who begin Grade 9 and do not have a diploma four to five years later) is currently estimated at between 18 and 30 percent, depending on the way it is calculated. The most current source we know suggests that it is indeed 30 percent, although one-third of those "drop-outs" eventually earn a diploma, giving a net drop-out rate of 20 percent.[3] This means that one in five students who begin the secondary program never earn the secondary school diploma.

Compared to the past and to other countries, this drop-out rate is not high: it is far lower than it has ever been, in fact, and represents a real and substantial success story. Over the past century, the definition of an adequate general education for all students has expanded from an elementary education to one that encompasses secondary school. It is only in the last 50 years or so that society has assumed that all students ought to earn a high school diploma; until recently, we acted on the belief that a Grade 8 – and, later, a Grade 10 general education – was sufficient for all but the university-bound.

As recently as the 1950s, it was expected that most students would leave school after Grade 10, and indeed drop-outs were a majority, not a minority, in those days. To a large extent, that attitude still prevails in many countries outside North America, where the drop-out rate is much higher, but where, in many cases, those not bound for university move into apprenticeship training that may include some continuing general education. It is only in comparison to the United States (and, now, Japan) that our drop-out rate is high.

Whether or not educating four out of five young Ontarians to the level of the secondary diploma is adequate is a matter of values. Increasingly, people have come to think of the diploma as a kind of rite of passage and a basic document of full citizenship – but it certainly has not always been so.

Because we tend to equate education with schooling, to a greater degree than may be true in some other countries, there is significant stigma attached to the lack of the diploma.

As well, because we (like the Americans) have never developed a strong apprenticeship system that brings together the education and training systems, we treat young people who leave school as being on their own when it comes to finding employment; that being so, we are reluctant to see them leave at age 16 or 17, without earning a diploma, knowing how difficult it will be for them to find living-wage jobs that offer opportunities for growth and advancement over time.

But it is very important to appreciate that the drop-out rate is by no means uniform or uniformly low across groups. In a heterogeneous society like ours, non-completion rates reflect the same problems of inequity as does streaming students in secondary school. Drop-outs, including students taking general- and basic-level courses (who, as we have seen, make up far more than their fair share of drop-outs) are much more likely than advanced-course students or graduates to come from lower-income homes, to be the children of parents who have relatively little formal education or who are recent immigrants, to come from single-parent homes, and to come from certain racial and linguistic groups – aboriginals, blacks, and Portuguese, among them.

In fact, a 25-year longitudinal study of students in Toronto shows that the drop-out rate among the children of working-class and poor people is double that of children from better-off families: two-thirds of the working-class and poor children drop out, compared to one-third of those from better-off families.[4]

It was in response to these inequities, more than to the total number of drop-outs, that in 1987 George Radwanski recommended that all secondary students enrol in the same courses – that there be just one level of difficulty, or stream.[5] His argument rests on the historically accurate observation that, as long as there are different streams, students from less advantaged circumstances, or students who are handicapped by unfair assumptions and social and racial bias, will always be disproportionately represented in the least demanding courses, and will obtain a lower quality and quantity of formal education, to their long-term economic and social disadvantage.

He offers abundant evidence to show that these disparities are not primarily related to differences in students' ability to learn, but to such non-academic factors as family income and parental education level. (The 25-year longitudinal study also found that the stream or level in which the student was placed bore more relation to that student's subsequent academic success, or lack thereof, than did measured intelligence or elementary school marks.)[6]

In response to the points in the Radwanski report and to other similar arguments, the Ministry of Education began to seriously consider destreaming high schools. But it was clear they would not accept Radwanski's recommendation "that the current policy of streaming high school students into academic, general, and basic courses of study be abolished, and replaced by provision of a single and undifferentiated

high-quality educational stream for all students." Instead, the Ministry indicated an interest in the possible destreaming of the first and second years of secondary school, Grades 9 and 10. This division fitted the existing pattern of curriculum guidelines, which defined Grades 7 through 10 as the intermediate division, and 11 to OAC as the senior division.

It would also bring Ontario into line with other Canadian provinces, most of which begin streaming students after Grade 9. (British Columbia and Quebec begin doing so after Grade 10.)

The recommendation brought a negative response from many secondary teachers, from the Ontario Secondary School Teachers' Federation (OSSTF), from many secondary students, from the Ontario Secondary School Students Association, from much of the university community, and from many parents of students in the advanced-level stream. The teachers took the position that homogeneous grouping was bound to be a disadvantage to both the most and the least able students; although our understanding of the research is that it does not support that position,[7] many teachers continue to adhere to it. Like the teachers, many parents of students who were or would be in the advanced programs felt that their children would be at a disadvantage and "held back" in more heterogeneous classes. There was also some opposition from a much smaller number of parents of children who were in basic-level vocational schools that, the parents considered, were offering their children a coherent alternative.

In the face of this opposition, the Ministry proceeded with the destreaming of Grade 9 only, and gave schools three school years, from September 1993 to June 1996, to complete this change. By the time we held public hearings, and throughout the lifetime of this Commission, considerable opposition to destreaming continued to be heard, but response was mixed, and there were an increasing number of reports about schools and teachers who felt they were making a success of the destreamed Grade 9 program.

In 1993, when schools began implementing Grade 9 destreaming, they had a new curriculum outline to follow. In what is referred to as the "destreaming" and "decrediting" of Grade 9, the Ministry of Education and Training, through *The Common Curriculum, Grades 1–9*, made Grade 9 part of the common curriculum. No distinction is made between the curriculum of Grade 9 and Grades 7 or 8; the learner outcomes that define the core curriculum are aggregated in three-year groups, and stated in terms of the final year: "By the end of Grade 6" and "By the end of Grade 9," students will have achieved certain results. Thus, Grades 7 to 9 are treated as a three-year block, in terms of common curriculum and learner outcomes.

By including Grade 9, *The Common Curriculum* left the remaining school years undefined. Because of the lack of new directions, schools and teachers are operating under the old rules (although some interim decisions had to be made for the students who are in Grade 10 in 1994–95).

In fact, the Ministry of Education and Training had begun the process of re-examining the secondary school curriculum before *The Common Curriculum* document was published; it abandoned the process when the Royal Commission on Learning was established, making secondary school restructuring, by default, part of our work.

The process of consultation begun by the Ministry focused on a number of issues, including the status of Grade 10 (credits and streams or neither); the definition of a credit and use of fractional credits; school size; retaining students in school; life skills and social issues in the curriculum; career planning; curriculum guidelines; learner outcomes; and others. Equity issues were also a focus, as well as the education of adult and immigrant students. Information is available on responses to the consultation, most of which

"If there is to be any hope of destreaming at the Grade 9 level, there must be an effort to keep students on a similar, challenging footing as early as Grade 1. If in Grade 1, we see students already being slotted into reading or mathematics groups of varying difficulties without having had adequate opportunity to realize their potential at a more advanced level, it is no wonder complete confusion will result at the start of secondary school."

Dufferin-Peel Roman Catholic Separate School Board, Student Senate

voices

summary

While the number of students graduating from high school has increased steadily and dramatically over the last half century, so that graduates are now the large majority, instead of a minority, the problem remains that some groups of students are much less successful than others. Children from homes with fewer educational and financial advantages are more likely to be streamed into lower-level programs, and to drop out of high school instead of graduating. The recent destreaming of Grade 9 is an effort to avoid premature and inequitable assignment of students to levels of courses.

As it becomes more and more difficult for people without post-secondary education to qualify for skilled employment, students who are not taking primarily university-preparatory courses will look increasingly to the college system for further education and training. Thus, a major issue is the need for clearer articulation and access routes between high school and college.

came from educators, but no action has been taken on any of these matters.

Therefore, while *The Common Curriculum* has redefined the elementary curriculum over the past two years, that has not happened in relation to the secondary curriculum (which now begins in Grade 10). For that reason, we propose a number of significant changes to the way the curriculum that follows the common curriculum is organized; we call it the specialized curriculum. Because we see curriculum as a continuum, rather than as a dichotomy, instead of referring to an elementary and a secondary curriculum, we prefer to think in terms of a common core curriculum from Grades 1 to 9 (which includes some options for local specialization) and a specialized curriculum after Grade 9, which nonetheless has considerable room for common courses.

Based on careful consideration of what we heard and have read about change in general and destreaming in particular, we have decided not to recommend the extension of the common curriculum to the end of Grade 10, as has often been proposed. We note that many educators have found the decision to destream Grade 9 traumatic, and they told us they feel beleaguered by the pace of educational change and reform in the last decade: they have not had time to implement one change before another is upon them. We are convinced, both by what we have read and by what some teachers and principals told us, that a common core curriculum could be offered through Grade 10, as is done in British Columbia and Quebec, but do not recommend that it be done in Ontario at present.

Suggestions for reorganizing the secondary school

The Duration

The most common form of school organization in Europe, Asia, and most of North America involves six years of elementary school, three of middle school, and three years of secondary school. Most students complete their final year of school in the year they turn 18; by contrast, students in Ontario have four years of secondary school after Grade 9, and most are 19 when they graduate. While the government has long intended to reduce secondary school by one year, to bring Ontario's structure into line with almost all other Canadian provinces and most other jurisdictions, the majority of our students take a half to a full year longer to graduate. Fewer than four in ten finish in four years, according to recent data. Most typically, university-bound students studying their OACs (Ontario Academic Credits, taken in the final one to two years of secondary school, and required for university admission in Ontario) prolong their graduation in order to repeat courses and raise their average. Even students who would like to finish in four years are sometimes thwarted by inflexible timetables, while others simply wish to take additional courses in which they are interested.

In principle, the Commission is committed to the idea that some students will take longer than others to complete a course, and that this kind of variability is preferable to the alternatives, which include lowering standards or punishing students with non-productive solutions such as repeating a grade; or, at the other end, forcing them to move more slowly than they are able.

But we are conscious that no other jurisdiction in Canada, and few anywhere in the world, allocate more than three years to secondary education, or more than twelve years to the compulsory education system. There is no evidence that the result is superior performance in university, as compared to students who spend only four in secondary school.

We concur with earlier commissions that have recommended that the fifth year of secondary education, or of education after Grade 8, be eliminated in Ontario, and that, starting in Grade 10, the program be defined as being three years in duration, regardless of the student's post-secondary destination, with the understanding that students may remain in school until they receive their diploma.

Having said that, we wish to discourage this practice, and reduce public expense by capping the number of course credits that can be obtained before automatic graduation, to ensure that the specialized curriculum is completed in three years. Thus we are recommending that a maximum number of credits (including any and all mandatory courses) be permitted, after which students will automatically receive their diploma, and will not be permitted to take further courses.

Under the present rules, simply prescribing the maximum (as well as the minimum) number of credits for graduation will not solve the problem. We reiterate: one of the principal reasons some students remain in secondary school longer than four years is that they are repeating courses, usually OACs, in order to improve their average, because universities typically base entrance requirements on a particular average in six OACs. At present, course repetitions do not show on the student's record; if they did, universities and colleges could, and almost surely would, choose the student whose 90 in English represented the first try, rather than the second.

Similarly, when a student fails a course, that failure does not appear on the Ontario Student Record; this lack of documentation also acts as a disincentive to students to make the maximum effort needed to pass the first time.

Some students take extra courses because they have changed their mind about the direction they want to take in future. While this will always be the case, we expect the emphasis on career awareness and career and educational planning that we are recommending – beginning in the early years, with explicit educational and career planning beginning in Grade 7, using and continually updating the Cumulative Educational Profile, and the student's on-going relationship with the teacher-advisor – will result in fewer changes and a reduction in the resulting need to make up courses.

Another reason secondary school careers are prolonged is that students are permitted, until quite late, to drop courses in which they have enrolled. Many do so after the mid-term exam, if they have received low marks. This accounts in part for the popularity of semestered courses: a student can drop a course in December and pick up a new one in January. One result is that each January many students change to semestered schools in order to begin new courses, having abandoned the course or courses they began the previous September at a non-semestered school. While it is reasonable to permit students to change their mind about a course after only one or two classes, it is not reasonable, in our opinion, to make it easy to abandon most of a semester's work – or lack thereof.

Repeating or dropping courses months after they begin is not productive, is not about learning, and requires unnecessary public expenditures. By removing any consequences for repeating and abandoning courses, and getting lower-than-desired marks, the system encourages an attitude that prolongs dependence, and that values success, however gained, but does not value effort.

Recommendation 16

**We recommend that secondary school be defined as a three-year program, beginning after Grade 9, and that students be permitted to take a maximum of three courses beyond the required 21, for a total of not more than 24 credits. We further recommend that all courses in which the student has enrolled – whether completed or incomplete, passed or failed – be recorded on that student's transcript.*

It should be clear that we are not trying to make things more difficult for students who have legitimate reasons for taking time out of their secondary careers, or who take fewer than seven or eight courses per year. Those who must work part-time, who are caring for young children, who cannot cope successfully with a full load of courses, or who have other obligations that prevent them from finishing the specialized curriculum in three years, will not be penalized: we are not restricting the length of time students may take to finish the equivalent of three years of full-time schooling.

What should be limited, in our view, is the number of courses they can take, not the length of time in which they complete them.

Curriculum organization

Problems

In virtually every country, students are streamed in secondary school. Typically, there is an academic or university-bound route, a technology route (which may or may not lead to some form of higher education), and a vocational route, which goes no further. In many countries, streaming begins earlier than in most of Canada; in some, it begins later.

As previously mentioned, Ontario's secondary school courses are offered at three levels of difficulty or what are often referred to as streams: basic, general, and advanced. Students leaving Grade 9 (previously, Grade 8) choose the level at which they will take most of their courses. This choice is often strongly influenced by teachers and guidance counsellors; parents may or may not be involved in making the decision, but must consent in writing.

The rationale for different levels or streams is that, by the time they reach secondary school, students differ so greatly, in terms of previous achievement (and, it is often presumed, in basic ability) they cannot reasonably learn and be taught together. (Research at the Grade 9 level, as we mentioned earlier, is not supportive of this idea.) It is assumed that the best-prepared and brightest students will be held back, and the least-prepared and slowest students will fall behind and fail. In theory, segregating students by program means that the distribution of marks within each of the three programs will be the same, because, once they have been appropriately placed, students will be competing at their appropriate level, and, relative to their classmates, will have the same opportunity to excel, no matter the level at which they are working.

In fact, this is not the case. There is abundant evidence that the marks of students in the general-level courses (math, English, etc.) are considerably lower overall than those of students in advanced-level courses. Furthermore, their failure rate is much higher: for example, in a 1992 sample of 60 schools, 15.6 percent of general-level Grade 10 English students failed their course, compared with 6.5 percent who failed it at the advanced level.[8] Coupled with the fact that the drop-out rate is much higher among students in general- and basic-level programs, these data clearly indicate that streamed programs do not accomplish what they are supposed to do: to equalize opportunities for high achievement across levels.

Observations of classroom procedures and course content, both in Ontario and elsewhere, consistently show lower expectations of students (for example, little or no homework is assigned) and lower motivation on the part of teachers in non-university preparatory, or non-advanced-level courses. Rather than being organized differently or having a different emphasis on content that meets the needs of different kinds of learners, or learners with different interests, most observers find these classes "watered-down" versions of those at the advanced level.[9]

In principle, a student may take courses at different levels. For example, she might take advanced-level math classes but general-level French classes. In practice, however, most students take most courses at the same level. This practice is so widespread that many schools, especially in urban areas, offer only one level of course across all subjects, on the assumption that this arrangement will accommodate most students' needs. Thus, we have basic-level schools, or collegiates that offer only advanced-level courses, making no allowance for possible differences in talent and ability by subject rather than by student.

Perhaps the greatest problem with the existing system is that it succeeds for only a minority of students, if we take success to mean that they meet their stated goals. As mentioned earlier, two-thirds of students choose advanced-level courses, because they hope to be eligible for university. But universities can and do accommodate fewer than half

The marks of students in general-level courses are much lower than of students in advanced-level courses, and the failure rate is much higher; The drop-out rate is much higher among students in general- and basic-level programs; Teachers have lower expectations of students in non-advanced-level courses.

that number; in other words, the majority of students who aspire to university will not get there.

Low or failing marks given in the required first- and second-year secondary school courses (most notably in mathematics) function to screen out large numbers of students. Much higher proportions of students in advanced-level courses receive marks in the 50s and 60s than in the 80s or 90s in courses required for university. In other words, the marking curves are not normal or bell-shaped. But this is not true of several of the non-sorting courses – such as physical education, drama, and music.[10] While most of these screened-out students do not realize or acknowledge, until their last or second-last year, that they will not get into university, their fate is quite predictable, based on the number of credits they acquire by the end of their first high school year. Almost all students try eight, or at least seven courses; those who have fewer than six passes will almost certainly be among the majority of advanced-level students who do not complete six OACs with marks that will gain them admittance to university.

Unless universities double their admission rates – which seems highly unlikely – many students need a better option than they have. The issue is not the level of sophistication, or the content of advanced-level courses, but that the idea of a university education is so attractive.

While that attraction is not likely to lessen, it is very important to attempt to provide an attractive and realistic alternative – not just a weaker version of similar courses that reach toward no particular goal.

It is true, of course, that the problem is deep-seated in a culture that values and rewards academic and professional skills more than applied skills. In spite of the fact that we lament the lack of skilled craftspeople, and despite our chronic dependence on immigrants with these skills, we do not pay or honour skilled workers as we do those who have a university degree and professional training.

University is the gateway to higher earnings and status, and is likely to remain so. We tend to equate general intelligence with academic intelligence, so that academic success and academic credentials become the major evidence of individual excellence and employability. As a consequence, courses or course sequences that do not lead to university eligibility will probably remain less desirable.

It is not surprising, therefore, that the majority of students choose, and are likely to continue to choose, the pre-university program even though it is perfectly clear that most will not be admitted to university after they complete secondary school.

Strategies

Notwithstanding the apparent difficulties, we are convinced that it is possible to fashion more successful alternatives that will help lower the number of students who leave school without a diploma, and will increase the percentage who attend college. At present, about 30 percent of secondary school students leave without a diploma (although one-third of those eventually earn it); about 25 percent go directly to university; about 20 percent go directly to college; a small percentage go to other post-secondary institutions; and about 20 percent go directly to work (although half of these people later attend university or college). (See Figure 1.)

A more successful set of options in secondary school might be expected to increase the percentage of students who go directly to college, increase the school-directly-to-work stream somewhat, and cut very substantially the number of students who leave school without a diploma. No matter how the curriculum is altered, there can be little doubt that students from disadvantaged homes and neighbourhoods will continue to be under-represented among

those admitted to university. But a more successful multi-stream system should enable more of them to complete their diploma – which, in itself, is a measure of increasing equity. As well, better links with colleges increase the likelihood that more working-class and minority students will obtain some post-secondary education, a considerable asset in terms of employment and income opportunities.

The success of any attempt to provide a workable and attractive alternative to pre-university education depends, in part, on the amount and quality of career education and awareness that has been built into students' experience before they have to make a choice.

Students who are aware of a wide variety of career opportunities, many of which do not hinge on university education, are much more likely to choose from among a wider range of options.

We agree that it is not sufficient to offer only one program in secondary school; because students have different experiences, interests, and aptitudes, and are eager to make choices, we are not proposing that students should take exactly the same array of courses, all taught at a single level of difficulty. At the same time however, we do not believe that it is necessary to offer courses at three levels, or to specify a particular level of difficulty or stream for every course offered. Nor do we think it is necessary or useful for students to feel obliged to take all or or almost all their courses at one particular level of difficulty, rather than making distinctions in response to their own interests and strengths.

Therefore, we recommend three major changes to the way secondary school courses are now being offered and sequenced:

Recommendation 17

**We recommend that only two, not three, differentiated types of courses should exist.*

While our conception of these two levels is that they should differ in emphasis between a more academic and a more applied approach to learning, we understand that, in the minds of most people familiar with the current jargon, the two will be likened to the current advanced and general levels.

Using that terminology, we would have to say that the third level – the one we recommend be dropped – is the present basic level. We recognize that there is a small group of students – at least 5 percent – who learn more slowly and do need extra assistance. But we think that it makes no sense to create a special set of courses or a program for these students – a program that, at present, almost four-fifths of them do not complete.

In our view, it is preferable to make extra support available to these students, in the form of individual tutoring by teachers, teaching assistants, and/or senior student-tutors; as well, they should be given extra time to complete courses. The principle of increased flexibility in course completion time – both to permit acceleration and to accommodate slower learners and learners with other demands on their time – is very important to us, and is discussed at several points throughout this and the preceding and following chapters.

Recommendation 18

**We recommend that some courses, (to be called Ontario Academic Courses, or OAcCs) be offered with an academic emphasis; that others (to be called Ontario Applied Courses, or OApCs) be offered, with an emphasis on application; and that still others be presented as common courses, blending academic and applied approaches, and with no special designation.*

We recognize that one of the ways that people of all ages differ in their approach to learning is the degree to which they look for practicality, relevance, and applicability in what they are learning. While we are convinced that many

students in elementary and secondary school – perhaps the great majority – are more motivated when their teachers help them see a connection between what they study and the rest of their world, we recognize that making this connection is more essential for some learners than for others. For those whose interests tend to be more technical and hands-on, courses in such subjects as English/français, mathematics, and the physical and social sciences, need to differ, not in the level of skill required, but in kinds of problems presented, and the use to which the content and concepts are put.

Take English/français as an example: all students must have a command of correct and conventional language, spoken and written, and, by the senior years of school, must be able to comprehend texts at an adult level. But some students want to read for information about topics that directly interest them – perhaps in science or in politics –while others want to read fictional and non-fictional literature as a source of ideas and themes about history and human nature.

But the student with the more practical approach to literature may have the more academic interest in science: differences exist not only among learners, but in the way that each learner approaches each subject. Someone with a strong interest in the humanities, for example, may be intrigued by aesthetics and motivated to study literature or art as a foundation of ideas and wisdom, without looking for obvious or immediately practical applications for what is being learned. But the same student may have little interest in mathematics unless its application is made very clear.

Consequently, we want schools to offer courses that meet the needs, not of two distinct kinds of students, but for two different emphases in course content, understanding that some students will prefer to select most of their courses as either OAcCs or OApCs, but not both; while other students will be more eclectic.

While we have no illusions about the likelihood of solving all problems or satisfying all stakeholders, we propose to change the nature of the secondary school course offerings and requirements into something that, we are persuaded, would be both more efficient and more realistic. (See Figure 2 on next page.) We want students to have the opportunity to focus on what interests them, and what will bring some coherence and a sense of purposefulness to their secondary school program.

Rather than dividing courses into different levels of difficulty, which then create streams or programs (of which only the advanced-level/OAC/university has a clear purpose and destination), we recommend that a number of programs be created. By these we don't mean streams, but rather packages of courses organized around such subject or career areas as math/science/technology, health-related occupations, communications, international languages, and finance. As well, the four integrated subject areas on which *The Common Curriculum* is built (math/science/tech, the arts, self and society, language/literature) offer one possible organizing principle for clusters of courses, or academies. We envision students who have a particular interest or goal (environmental science, for example, or a college diploma course in early childhood education), with the help of their advisor, constructing a program which might include one or several academic, applied, and common courses each year, each of which would make sense as part of a package of courses supporting that interest and/or goal.

Some models currently exist in secondary schools for students who want to specialize; there are a few arts academies, for example. The current "business studies endorsement" and "tech studies endorsement" are secondary-level certificates that recognize a concentration of at least eight courses in those areas. In some jurisdictions outside Ontario, the variety of career academy models includes, in addition to the arts, health sciences, communications, etc. All of these options tend to make secondary programming more coherent, meaningful, and attractive to students.

In Chapter 8, in the context of a discussion of the needs of young adolescents in middle and junior high schools, we

FIGURE 2

The idea is to contrast the high school program as it is now, under the present guidelines, and as it would be in future, if our recommendations are implemented. To make this contrast, we show sample programs in the first and last years of secondary school for three (imaginary) students, who are called Anna, Tony, and Lee.

The Future

present

Anna wants to be a lawyer; therefore, she must go to university before she can apply to law school. Under the existing system, that pretty well means that she must take all her courses at the advanced/OAC level – even in subjects she will not pursue in university.

Tony wants to be a broadcaster. One might get there by going to university, to college, or directly to work; Tony's intention is to go to college and get a diploma in broadcasting. To apply to college, one can take courses at any level of difficulty, although general level is the most common. Tony will take mostly general-level courses, and one basic level.

Lee wants to be an electrician. One might do that by going to college or by going directly into the workforce; the latter is Lee's intention. In principle, Lee can take courses at any level, but since she has no intention of going to university, it makes no sense to take advanced-level courses. Lee takes almost all general-level courses, and one basic-level course.

future

Under our proposed scheme, Anna, Tony, and Lee would have definite possibilities of taking some of the same courses. (That can happen to Tony and Lee, now, but it is not likely to happen with Anna.) As well, under our proposed scheme, they would not choose all of their courses at one, single level. Our proposed scheme has no levels. It includes three kinds of courses: academic, applied, and common, and most students would choose at least two of these types of courses. Academic courses would be chosen if the student has an academic interest in the subject – wants to pursue the study of it, or something closely related to it, typically at the university level. Applied courses would be chosen if the student would like to have an informed layperson's level of knowledge in that area; or, if the student is interested in applying the subject, he or she could do it with or without further post-secondary education.

Thus Anna is taking an applied science course in Grade 10, because she wants to have basic science; and Lee takes an academic science course in Grade 10, but an applied one in Grade 12, because, while she needs a good understanding of basic science, she is not going on to further study of science as a discipline.

In addition, several courses are offered as "common courses," meaning in one format only. Thus if Anna, Tony, and Lee all want to take physical education, art, drama, media, or family studies, they will all find themselves in the same course. The idea is that many subjects are appropriately offered to everyone in the same format. If a student isn't interested in drama, he won't take it; if he is interested, he'll take it with everyone else.

So, under our system, here are the first and final (third-) year programs of our three students. (Note that Anna would not be in school any longer than Tony or Lee.)

Curriculum

		GRADE 10		GRADE 12
Anna	Advanced level:	**English** **math** **history** **French** **phys ed** **science** **art** **keyboarding**	OAC:	**English** **history** **finite math** **politics** **economics** **French**
Tony	General level:	**math** **history** **French** **phys ed** **science** **design and technology: communications** **English** **drama**	General level:	**English** **history** **French** **science** **politics** **economics and management studies** **design and technology: construction**
Lee	General level:	**math** **English** **history** **phys ed** **science** **keyboarding** **design and technology: construction**	General level:	**English** **math** **science** **phys ed** **entrepreneurial studies** **law** **design and technology: construction**
	Basic level:	**French**		
Anna	OAcCs: OApCs: common courses:	**English** **history** **law** **French** **math** **accounting** **art** **phys ed**	OAcCs: OApCs: common courses:	**English** **politics** **law** **economics** **math** **French** **management studies** **art** **environmental studies**
Tony	OAcCs: OApCs: common courses:	**English** **French** **science** **history** **math** **communications technology** **phys ed** **drama**	OAcCs: OApCs: common courses:	**English** **French** **science** **history** **law** **communications technology** **drama**
Lee	OAcCs: OApCs: common courses:	**science** **English** **math** **history** **French** **construction technology** **phys ed**	OApCs: common courses:	**English** **science** **math** **law** **entrepreneurial studies** **construction technology** **phys ed**

Note: Anna's courses are often spread over two years.

The New Scheme

It should be clear that these are examples only, and are arbitrary; we don't know whether schools/colleges/universities will decide that law, for example, needs to be offered in two formats, or simply as a common course; or whether environmental studies will be offered as a common course, or should be offered in two formats. So much of this is hypothetical.

The rule we suggest in the text is that as far as possible courses should be common ones, and that OAcCs should be offered only where they form an essential sequence for university admission in a particular subject area or discipline. Thus, math and science must be offered at OAcC level for anyone wanting to go to university in a science/math/engineering stream, for example. But someone wanting to go into law school after university may not need or want an OAcC math course.

explained our preference for smaller schools, in which adolescents have a better chance of knowing and being known by their teachers and their peers, and are much less likely to feel alienated or to be simply a face in the crowd. We recommended that the Ministry and local boards encourage and provide incentives to schools that wish to reorganize themselves to create smaller learning units.

Secondary schools are usually the largest of the school units – not uncommonly including well over a thousand students. Hence our concern for creating smaller communities for students is especially applicable at the secondary level. Furthermore, there is another advantage to the small school at this level: given that most secondary schools in Ontario are large, and that the small units can only be achieved by creating "schools-within-schools" or "houses," in which two or more such units share a large building and its major facilities such as labs, library, gymnasium, and cafeteria, it follows that the small schools within the large shared building could also specialize by subject or topic. One school building could, for example, contain four discrete schools, one an arts academy, one organized around the health sciences and allied disciplines, a third devoted to international languages, and a fourth with an emphasis on social sciences and helping professions. Students might take some courses outside of their "school" but within the same building; but they would choose the "school" or "house" that best represents their main interest.

Schools like this are somewhat analagous to the alternative schools in some municipalities, which are deliberately small, focus on a particular program, and draw teachers and students who want to be part of that program.

Both because smaller learning units support stronger bonds between teachers and students and between students and students, and because they offer the potential to support the kind of interest-focused curriculum packages that represent a degree of specialization, we believe such smaller learning units are productive for students of this age.

Recommendation 19

**We recommend that large secondary schools be reorganized into "schools-within-schools" or "houses," in which students have a core of teachers and peers with whom they interact for a substantial part of their program. Such units may be topic-, discipline-, or interest-focused.*

At the same time that we expect programs with a significant degree of specialization and focus to be attractive to all students, we recognize the necessity of involving universities and colleges in organizing and structuring various programs and program options, as a way of marking out paths to post-secondary education. A locally developed model for programming of this kind is the school/college articulation program, which has blossomed in recent years: high school students take courses that lead directly to placement in specific college programs. For example, Seneca College and the Etobicoke Board of Education have signed an articulation agreement that gives students who complete a secondary school course, Seniors in Society, advanced standing in the first year of Seneca's Social Services Worker Gerontology Program.

While students take Seniors in Society, they are also learning about and negotiating the admissions requirements for Seneca's program – should they decide to apply to it. This specific articulation agreement is another example of the generic model we favour, in which school and post-secondary institution jointly define a program that is continuous and cumulative; nonetheless, we believe that it may be too specific to become a general pattern.

While some colleges are involved in very specific articulation programs, as a sector they have not joined with the secondary school sector to plan centrally for secondary-post-secondary continuity in the same way universities have. The opposite is true for universities: there is a single program, the advanced-level/OAC sequence, that clearly leads to the possibility of university application and admission but makes no distinction between subjects students intend to

The Youth Internship Program

A new electrical/electronics curriculum is being created with funds from the federal government and industry, school, and college partners. The curriculum will begin at the high school level and be completed at the college level. High school graduates of the program will be able to proceed directly into a college technician/technologist diploma program, or enter the sector's workforce with generic skills, which will be sufficient to allow the worker to be productive while pursuing the diploma as a part-time student. A group of students in each of seven locations in five provinces will participate in the first trial of the new curriculum. The idea of the Youth Internship Program is to develop work-based training opportunities for young Canadians in new and emerging sectors where few entry-level training programs currently exist.

success story

pursue and those they do not. The university sequence could be improved by being made less global and general, as well as more plural and interest-focused. In other words, we need university packages, not a university stream. The college sequences could be improved by being made less specific and more comprehensive. In other words, we need some college packages, not dozens or hundreds of articulation agreements.

We believe that, just as there are now certain courses students must take if they aspire to university, in future there should be equally well-defined requirements for college application and admission. We are not proposing that, as is now the case, courses recognized by universities be totally distinct from all others.

We do not propose that the university-bound student be obliged to take OAcCs only, or that the one planning to go to college take OApCs exclusively. Instead, we suggest that the particular combination of OAcCs and OApCs required for admission to various programs and major areas of study at colleges and universities should depend on decisions made by those bodies working with secondary school educators, and organized by and responsible to the Ministry of Education and Training.

For example, a student who wants to attend a university's engineering faculty might be required to take a set of math/science/technology courses, all of which are OAcCs, and might take the other subjects – English, social sciences, arts – as OApCs. A student whose goal is the electronics technology program in a college might have to take some, but not all, math and technology courses as OAcCs, but the science courses, as well as those in arts and humanities courses, could be OApCs. A third student, interested in a college's program for technicians, might take all courses as OApCs.

While we are aware that this plan does not provide a specific set of programs tailored for students who do not go on to post-secondary education, we believe that, for several reasons, the structure is a benefit for them as well: first, there is growing consensus that, increasingly, students who do not have any post-secondary education or training will be at an economic disadvantage; this convinces us that it is unwise to create dead-end secondary programs. Second, many students – about half, in fact – who do not immediately go on to post-secondary education after secondary school do so eventually; being prepared for a post-secondary program can only facilitate that later transition. Finally, a coherent, practical, interest-focused program should make schools more attractive and help them retain students, irrespective of their future plans.

There is little purpose in staying in school if the program has no shape and no destination; if it has both, it should encourage more students to stay to completion and to continue on.

Our idea is that all students should be treated alike when it comes to organizing their curriculum after the common core curriculum is finished at the end of Grade 9. All students, we think, would benefit from, and be motivated by, a degree of coherence that comes from greater specialization. We also believe that a good, common education to the end of Grade 9, built on strong foundation skills, on early and continuous career awareness, on a community-work experience program, as well as on excellent career counselling will mean that 15-year-olds are ready and eager to focus on their interests and strengths, without having to sacrifice a good general education.

We believe, as well, that this good general education can and should continue within the more specialized curriculum after Grade 9. That principle is embedded in our proposal in two ways: first, we are suggesting that many courses be offered, not as OAcCs or OApCs, but in one form only, without special designation. Such courses as family studies, phys-

success story

École Secondaire Publique Charlebois in Ottawa-Carleton offers a curriculum centred on student activities, particularly in math, science, and technology. Beginning in Grade 11, students can specialize in these subjects if they wish, in preparation for a trade, profession, or for post-secondary studies in these areas. Among the partners supporting the program, through activities and opportunities that include mentoring, visits, camps, training sessions, projects, and co-operative education, are Bell Canada, Bell Northern, La Cité Collégiale, SHL Systemhouse Inc., Canadian Space Agency, and the University of Ottawa.

ical education, life skills, drama, visual arts, and most business courses can be offered in this single, common way. The only courses that should take the form of OAcCs or OApCs are those required by universities and colleges for admission to particular programs. These would probably include English/français, mathematics, science, French/anglais, history, as well as geography and some business and technology courses. But the final decision on this would be left to the post-secondary educators, working with secondary educators.

We have recommended that courses in subjects important to university or college admission be offered in two forms – OAcC/OApC – and that other courses be offered in one form only. Although specific requirements must be worked out between universities, colleges, and the secondary education section, we believe the guiding principle should be that students should be required to take courses in a particular one of the two forms, rather than being able to choose freely between them, only when they are specializing in a particular subject or career area.

Our second mechanism for ensuring that students continue to acquire a general, liberal education even while they specialize in an area of interest is to require that all students take a number of mandatory courses, as is the case at present.

We are particularly concerned that no student graduate without adult literacy skills. Therefore, we have chosen to make such literacy a requirement for the diploma. (See Chapter 11.) In addition, we are certain that all graduates should have a solid basis of knowledge of Canadian and world history and literature, but are concerned that not all do at present.

While we are certain that decisions concerning exactly what courses should be required of all students must be based on clearly defined learner outcomes for the end of Grade 12, these outcomes do not yet exist. Nonetheless, we offer as one reasonable model the following list of 14 courses to be required of all students within the 21 credits (Grades 10–12) required for the diploma:*

3	English/communications (or français) credits
2	math credits
2	science credits
1	Canadian history credit
1	geography or social science credit
1	arts or physical education credit
2	language credits (French/anglais and/or one other international language)
1	life skills credit, with modules in career education, community service, violence prevention, anti-racism, media literacy, and personal/financial management (These modules could also be offered within the English or mathematics curricula)
1	business studies or technological studies credit

In addition, we recommend two mandatory diploma requirements (credit or non-credit) for all students.

Recommendations 20, 21

**First, we recommend that they participate in physical exercise at least three times per week, for not less than 30 minutes per session, either in or outside physical education classes.*

**Second, we recommend that they take part in a minimum of 20 hours per year (two hours per month) of community service, facilitated and monitored by the school, to take place outside or inside the school.*

(Examples of the latter include peer and cross-age tutoring.)

* At the request of a parent or student, up to two exemptions/substitutions could be made, as is presently the case.

All students, we believe, should also be given, and be expected to use, generous opportunities to participate in work- and career-related learning activities in and out of school, which will be integrated into the curriculum. Both the community service and the work- and career-related activities should be included in the student's Cumulative Educational Profile (CEP).

Finally, we believe that reorganizing curriculum into programs that are topic- and interest-focused will have a healthy effect on informally reorganizing staff. Many educators told us, and local research also suggests, that, as a result of the system of departmental affiliation of secondary teachers, there is a lack of communication across subject boundaries – "Balkanization" – which is aggravated by the large size of secondary schools.[11] This failure to integrate staff has sometimes been reflected in an exaggerated and artificial segregation of curriculum, preventing connections from being made that would enrich the coherence and importance of a student's total learning experience during a given year or semester.

While smaller learning units – our schools-within-schools – will help to break down these walls, so will interdisciplinary programs that bring subjects and, therefore, teachers together. If math, science, English, and art teachers are part of a communications academy, they will, of necessity, find themselves working together to present a reasoned sequence of courses over the three years. While each teacher may maintain her departmental affiliation, she is very likely to find herself spending as much time with teachers from other departments. We believe this shift would be to the great benefit of students as well as of teachers, whose continuing education depends so much on their professional interchanges with colleagues. (See the section on department heads in Chapter 12, for further discussion of the issue of staffing and staff functioning.)

Flexibility

As we said earlier, we are concerned about the present inflexibility in force in almost all secondary schools: all courses are offered in units of equal length, and every student has exactly the same length of time as every other in which to complete a course – no more and no less. We have seen some powerfully persuasive examples of flexibility in secondary schools, and we want to see them become more wide-spread.

success story

Community Service and Construction Technology

The Windsor Roman Catholic Separate School Board has developed a unique partnership between the school, community, and local business.

Canada Mortgage and Housing Corporation (CMHC) currently operates a program entitled Home Adaptations for Seniors Independence (HASI), which provides funding to low-income seniors for adaptations to their homes. This will assist seniors in their daily living activities and allow them to remain living in their own home rather than an institution. The students from the Windsor Roman Catholic Separate School Board's Construction Technology program have become involved in this venture by completing the required work for the seniors at no cost for the labour while the materials are paid by CMHC, not the school board or senior. This allows the senior to obtain two and three times the amount of work completed on their home because there is no labour charged, thus allowing the grant from CMHC to be completely spent on materials.

Students design, estimate, schedule, fabricate, and install the project from start to finish. Projects have been completed in the City of Windsor and surrounding communities in Essex County. Local businesses provide the materials with no money up-front, and are paid only when the project is complete. This is an excellent example of an innovative project – the first in Canada – between a federal organization (CMHC), students, and local suppliers. What better way is there to learn than on the job site in a real-life situation?

One way is to design units or modules, either within courses of the traditional length (one semester or one year), or as partial credits in themselves. In either case, the idea is that students could progress through a sequence of modules at different paces, with those needing more support able to get it, and those capable of accelerating doing so.

Another form of acceleration is by prior learning assessment: to the extent that courses are broken into modules, or that partial credits are offered, it becomes increasingly plausible to give students the option of "testing out" through a challenge exam and moving to a higher level. We have no doubt that, for example, there are students sitting through much of Grade 10 math who are quite able to do Grade 11 math or do the second half of Grade 10 math in September of their Grade 10 year. (Below, in the section "International languages," we speak of the challenge exam as applied to

"Students from the [R.H. King] Academy are also required to complete a minimum of 25 hours of volunteer community service before they graduate. Most students continue to serve in the community after their hours are completed because they enjoy helping others. This experience is valuable to the students because they learn commitment. They become responsible for their community, and realize just how important it is for the school and its community to have a good relationship."

Voices

Kristen Desarno and Jen Parks, R.H. King Academy

international languages, and in Chapter 10 we address this issue more generally.)

At the same time, many students fail Grade 10 math unnecessarily: some may need 12 or 14, not 10 months to complete the course, and may need extra support in one-on-one or small groups, with a teacher or perhaps with a senior student tutor. But these youngsters should not have to finish in 10 months or fail and invest a second 10 months in the same material, much of which they already know. Instead, they need flexibility of time to complete the work, and immediate remediation – a little help when they need it, not a lot of help when it is much too late.

While most courses have not been developed in modular form, teachers need not necessarily start from scratch to redefine curriculum that way. One resource – not well known but readily available – is the long list of courses developed as independent learning packages by the Independent Learning Centre of the Ministry of Education and Training. Although most ILC students are adults, there are several thousand day-school students every year who acquire credits independently by completing ILC courses. In some, but not all cases, the students are using the ILC as a distance education resource. But the materials used for ILC courses are certainly readily available to teachers who want models for work that is broken into smaller units and done at the individual's own pace. We also expect that increased availability of computers and interactive videos will make individualization of materials more attractive and more effective.

Summer and night schools are other possibilities for students who want to accelerate or to catch up. But, like day-school courses, those being taught at night or in the summer are of uniform length and occupy a pre-established number of classroom hours. One intriguing possibility related to the idea of the year-round school is to make summer an optional learning extension period, for the student who wants to spend longer than the usual number of days and weeks to complete a course begun in the fall, winter, or spring.

Another way to give students flexibility, both in what they learn and how they learn it, is through a study or project that is independent of any course. Although this can be done within current guidelines, it is rarely presented to students as an option. Students can be encouraged to discuss an idea with a teacher – any teacher – and work out a plan or contract. Any teacher, depending on interests and expertise, can act as a resource for a student. Students who work in this manner have the opportunity to further develop invaluable skills related to time management and self-discipline.

Recommendation 22

**We recommend that the same efforts to centrally develop strategies and ideas for increasing flexibility and individualization of the pace of learning, which we called for in the common core curriculum, be applied to the specialization years.*

The other important kind of flexibility is that which exists between programs. If a student changes her mind about her interests, or about going to college or university, program requirements should not be so rigid as to discourage her. Our recommendations make it possible to achieve flexibility in two ways: first, because many courses would be available in only one form, the issue of differences between programs would be minimized: if she chooses drama – whether she is taking courses in applied arts, communications, or humanities, or intends to apply to university or college – it would be the same course. Second, by encouraging challenge exams and prior learning assessment, students would be able, on the basis of tests, to move beyond content they already have mastered and to enter that course, either in a class setting or on an individualized basis, at the point where they qualify, or, in some cases, be excused from the whole course or most of it. This would cover any course and any student, regardless of the program in which she had been specializing. If, for example, a student had completed the Grade 10 English OApC and wished to take Grade II

English OAcC, she could do so after passing the Grade 10 English OAcC exam.

Curriculum content

Basic requirements

We want to build a secondary program that rests on high standards, rigour, and continuity of general education and the opportunity for specialization. We want all students to be able to choose a program based on their interests and aptitudes, in which links are made between academics and applications, and between school and working-and-learning settings outside school.

We have described a three-year secondary program, beginning after Grade 9, with 21 course credits required for graduation. Some of these will be offered in only one format; others will be available in OAcC and OApC configurations.

While all students are likely to experience a mix of academic and applied learning, the balance between the two programs will differ somewhat. For example, we intend that the number and intensity of workplace and in-school work-related experiences – job-shadowing, co-operative education, and other worksite learning opportunities – would increase substantially in all courses, and that curricular emphasis would be on in-class practical applications of knowledge. But more time would be spent in these learning contexts in OApC than in OAcC courses; for example, while all students would take English/communications courses, which would contain components of both conventional literature and technical literature, the balance between those two would certainly differ in OAcC and OApC courses.

The goal would be to ensure that, no matter what courses students took, they would be well prepared for the Grade 11 literacy examination. (See Chapter 11.)

We believe it is very important that the most advanced OAcC and OApC course in each subject area should have a common core, across all schools; it should be significant enough to give students some guarantee of consistency of both content and evaluation standards, as well as providing reliability in what is taught and learned in courses that have a major impact on admission to college or university.

To accomplish this, we propose that an existing process, the Ontario Academic Credit/Teacher-Inservice-Program (OAC/TIP), be expanded and improved. OAC/TIP involves secondary and university educators working together to evaluate the final examinations set by teachers across the province in each last-year academic (OAC) course, the quality of student response, and the standard being applied, as reflected in teachers' evaluations and marks. Teachers from the two levels look at actual sets of exams, and arrive at agreement about standards.

At present, this process applies only to those final-year academic courses; we are proposing that it expand to include final-year OApCs as well as OAcCs, because we believe that standards of excellence are equally important in both course types. It would be necessary to involve college as well as university teachers in this process, and both groups more prominently than the university sector is currently involved. If the process were implemented and monitored seriously, and involved college educators for the new OApCs, with a now-absent emphasis on public reporting and accountability, consistency would be achieved while building teacher capability in assessment. Chapter 11 includes our specific recommendation for expanding the examination review process for final-year courses, to be certain that all courses are included, and that the cyclical review schedule for subjects is accelerated, so that reviews are more frequent.

In order to implement this curriculum, major efforts are required: first, new course groupings, or programs, must be developed by schools, colleges, and universities, working toward better articulation for students. Second, many course

success story

Mary Ward School in Scarborough offers individualized programming to its secondary students, by breaking down all-year courses into 20 units, each one leading to a test. Students progress at their own rate and take the end-of-unit tests when they are ready. Teachers build "seminars" – opportunities for them to teach students in small groups – into each unit, and are also available to students at any time for individual help. Students may have as many as 14 months to complete a course. Teacher advisory groups – a teacher-advisor and the students who are advised by that teacher on a continuous basis over their years at Mary Ward – meet twice daily, and every student has an individual conference with the teacher-advisor every second week, and brings home a written report after each conference. This enables students to move quickly or slowly, depending on their grasp of a subject; to get help when they need it; and to know that their progress is being regularly monitored, with frequent communication with parents. At the same time, their need to be part of a peer group is met by the advisory group's twice-daily meeting schedule.

success story

Some secondary schools use the Copernican Plan to shorten course units and, at the same time, make the teacher-student group much smaller and more personal. Under this method, students take only two subjects at a time, each course lasting ten weeks. Thus, over one school year, students are expected to complete eight courses, just as in the conventional arrangement. However, because only two courses are taken simultaneously, students have only two teachers and two groups of peers. For their part, teachers have only 40 to 50 students on their roll at one time, allowing personal relationships to develop, and students to know one another and their teachers, and be known by them. L.V. Rogers High School, in Nelson, British Columbia, has experimented with this plan successfully over three years, and it has inspired more than a dozen other B.C. high schools to implement the plan.

guidelines will have to be rewritten. Currently, for example, there is little emphasis on technical writing in any English class, and too little emphasis on application in most mathematics and science courses. At present, these applied but challenging math and English courses do not exist in most schools. And the common courses – the drama, family studies, and other courses offered in only one format – must reflect a good balance between academic and applied skills and experiences, to cater to all students.

In order to offer common courses within a variety of interest-based programs, it is necessary to agree on the intended outcomes of each course. Thus, the drama course may have quite different content and applicability if it is being offered in a communications program rather than a health sciences program; but there must be a common set of outcomes that apply to drama in both (and many other) programs. For example, we may expect all drama students to show an increased ability to understand and portray a range of human feelings, although the dramatic situations and roles in which they develop and exhibit this ability will differ in content. As long as curriculum guidelines are developed that specify what students are expected to learn and know, curriculum designers and teachers will be able to develop a variety of modules and materials that cover the requirements and connect to the content theme. In so far as this can be done centrally, teachers will not have to develop materials even as they attempt to teach them.

Finally, there must be a very significant increase, for students, in the school/work articulation opportunities, which are severely limited at present by the traditional reluctance of business and labour to become involved in apprenticeship-like activities.

While we strongly believe that all students in all programs need to see a greater connection between school and career, have more experience in work settings, and gain a greater sense of how their course work can be applied outside the classroom, we recognize that students who do not intend to go to university have the greatest need for this connection and emphasis, to give both program and student a sense of purpose and direction.

Given that we have recommended much smaller school units, usually in the form of schools-within-schools, it should be possible for most if not all communities to offer several different kinds of focused programs to attract and engage students with different interests and talents, at the same time they are offered a high-quality core curriculum, regardless of specialization. We think the best way to ensure the latter is through a combination of learner outcomes, standards of performance in foundation skills areas, and example-illustrated curriculum guidelines for each course – in precisely the same way we described the elementary level curriculum.

Recommendation 23

**We recommend that a set of graduation outcomes be developed for the end of Grade 12; that they be subject and skill oriented, as well as relatively brief; and that they cover common learner outcomes for all students as well as supplemental learner outcomes for the OAcC and the OApC programs.*

Thus, the curriculum guidelines for Grade 10 Geography, for example, would list: (1) outcomes for all learners, (2) supplemental outcomes for those in the Grade 10 OApC, and (3) supplemental outcomes for those in the Grade 10 OAcC. The first list would be longer than either of the other two.

We strongly suggest that learner outcomes, Grades 1–12, be understood as a continuum, and that the new statements of outcomes developed for the specialization years be created and tested by elementary, secondary, and post-secondary educators, working together. The Ministry of Education and Training must provide leadership, but should draw heavily on expertise from teachers' professional groups, such as subject councils.

success story

Education Strategies for Women in Math, Science, and Technology

The Waterloo Region Catholic School Board has developed a number of programs to encourage women students to pursue careers in these traditionally male areas. The programs begin in Grade 9, with career workshops and job-shadowing; by Grade 10, gifted female students can spend time at the University of Waterloo working with a graduate student or faculty member. As well, students have been placed at Waterloo as research aides to professors, earning secondary credits in math, science, and computer studies at the same time they are studying a related university course for credit. The goal is to encourage female students to think of academic research in these areas as a career possibility, so that they continue to study math and science in university and in graduate school.

The foundation subjects revisited

In our opinion, the subjects we described as the foundation of Grades 1 to 9 should continue to function that way through graduation: all students must continue to enhance their literacies by acquiring knowledge and sophistication in communications, in mathematics, in science, in information technology, and in group learning/life skills. The issues for restructuring in each of these areas are discussed briefly.

The concern of many educators and specialists is that communications, mathematics, and science courses should have more applied emphasis in the specialization years. We agree that all learners would appreciate this emphasis, and want to see all courses connect more to students' realities; in particular, the OApCs we are recommending would be carefully designed to meet this need.

In English/communications, there should be more emphasis, for all students, on universally needed and useful applications, such as writing résumés and reading technical reports. We do not wish to see any student deprived of continuing exposure to the world's great literature; nor is it acceptable for a student to graduate without being able to write a gramatically correct, well-reasoned essay or well-researched paper. But we are equally concerned that practical applications, such as a high level of media and technical literacy, should be part of everyone's education.

In both science and mathematics, the need for a more practical and useful approach to science is equally acute.

> At the secondary level, scientific literacy for all implies an entirely new approach to curriculum ... New courses [in math, science, and technology] ... would have a general focus on science and technology in a broad societal context and would have scientific literacy for all as their main focus ... Courses in biology, chemistry and physics would remain ... but would be taken by fewer students, those intending to specialize in particular sciences at the post-secondary level.[12]

We would add that the "broad societal context" focus in science should include an emphasis on ethics and on human and social applications of science. Researchers and advocates concerned with attracting more female students to the sciences often identify this kind of content as being a key to improving both the quality and comprehensiveness of the science curriculum in general, and attracting and keeping more female students in particular.

While science is one avenue for applied mathematics, math courses themselves must be restructured so that they become more useful to students. Most students will not become mathematicians, but they need to know how to use math and to solve problems in the context of life and work. This does not imply any lack of rigor or challenge, only an obligation to prepare students well for what they will need and be able to make use of, whatever their post-secondary destination.

Mathematics educators tell us that

> students need to see how mathematical ideas are related. The mathematics curriculum is generally viewed as consisting of several discrete strands such as number or space which are often taught in isolation from one another. It is important that students connect ideas both among and within the areas of mathematics. Students need to broaden their perspective to view mathematics as an integrated whole and to recognize its usefulness and relevance both inside and outside of school.[13]

What educators are calling for is an emphasis on problem-solving, application, and understanding – the literacies. They emphasize that fewer "big ideas" well understood and well connected in the mind of the learner are far more important than extensive lists of facts, which will not be remembered.

In the last years of secondary school, science and math remain the areas in which female students lag behind males. Their participation and success rates equal (or exceed) those of male students in elementary and secondary science and math – until the final year courses in physics and calculus.[14] It is at this last step, and in university courses that function

"The purpose of education is to help people individually and collectively to think knowledgeably and critically about the world as they find it, to see the world in new and different ways and to be able to be activists in respect to their views ... People are not only workers, but also family members, community activists, and citizens in an increasingly complex world.

James Turk, Director of Education, Ontario Federation of Labour

voices

as gatekeepers to science and math, that women's participation rates drop off. While there are indications that many female students would particularly like to see more practical and social applications of math and science made explicit throughout the program, their success in spite of the abstract nature of most existing advanced-level math and science courses equals that of their male peers. It would appear that the prospect of continuing in math/science in university is what they find unattractive or forbidding. In recognition of this, some schools, colleges, and universities have co-operated to create transitional and linking programs designed to make university-level science and math more accessible to women.

Of the foundation subjects being revisited in this chapter, none must be upgraded more than information technology: as students come into secondary school with extensive experience in using computers for writing and communicating with others, courses that do not expand the student's skill base – keyboarding for example – will virtually disappear from the curriculum. (In the same way that we do not offer courses in the use of the ordinary phone.)

Students will have extensive experience with word-processing software long before they reach Grade 10, and we can expect to see computer use and skill expand as information is searched and synthesized in increasingly sophisticated ways across most subjects, as well as in specialized arts applications. Networks of computers and the information they make available will also be essential in independent study projects, with the teacher acting as a consultant rather than as the organizer of the material to be learned.

As the emphasis on workplace learning increases substantially in the secondary years, the interpersonal, group learning, organizational, and decision-making skills that have been emphasized since the early years will have obviously broader applications. Students will need guidance and practice in interviewing, and in understanding expectations of employers and fellow workers.

The greater emphasis on applied topics will give students opportunities to practice such essential life skills as preparing résumés and income tax forms, and learning to read technical manuals and labels critically.

Many parents and others concerned with the broader interpersonal education of adolescents commented to us on the need for greater education in parenting. Despite the fact that the transition to parenting is as real, that it may be as imminent, and certainly is as important for high school graduates as the transition to work, most students in the public school system are not exposed to family life education until Grade 7, although it begins in the early grades in Catholic schools; and many do not opt to take family studies courses later, in secondary school, when they might be more useful.

As we become increasingly more concerned about the rising rate of marriage breakdown, the growth in the number of child abuse cases being reported, the fact that more teen mothers are raising babies ("children raising children") than ever before, and alarming rates of family and youth violence, there is a new sense of urgency about the need to offer parenting education to young people. This is perhaps the situation in which community partners must be most active in assisting schools to design and deliver the curriculum, and in promoting non-academic learning of vital interest to the community.

Rather than insisting all students take a non-academic course that some of them, or their parents, do not feel is useful or desirable in secondary school or as part of the curriculum, we suggest it remain optional – that the parenting component within the family studies or life skills course be made well known to students, and that parenting courses in the community be supported by government, and made widely available through childbirth preparation courses, birthing centres, and hospital maternity wards, as well as at public libraries and community centres.

success story

Guidance and Career Education

The guidance program at Twin Lakes Secondary School, Orillia, is organized to give all students a developmental and sequential program, using classroom presentations and personal interviews. Each student records career interests, career plans, work experience, co-operative education, and volunteer work on a personal data form. It is intended that over four years, the student will become more informed about her or his interests, skills, aptitudes, as well as available career and educational opportunities. Students will also have acquired decision-making skills to choose careers or programs to match their interests and aptitudes, and job-search skills such as interview skills, résumé writing, and writing letters of application.

From Grade 10 on, students can and should, for their benefit and that of their peers, be accepting increasing responsibility for organizing and operating support systems in school, including conflict resolution teams, tutoring programs, and peer support groups. Students may need adult assistance in organizing and maintaining these services, but can carry out most operations, in a valuable learning opportunity that offers them a valid way to discharge part of their annual community service obligations. This form of community service, whether at school or in the larger community, is a rich field for developing life skills.

Career education and career counselling

The curriculum we recommend would begin building connections between the school and the community very early, starting with a focus on community and career awareness in ECE/kindergarten, and continuing with a Cumulative Educational Plan (CEP) starting in Grade 7. But it is in the specialized curriculum that actual participation in extended, as well as brief, work experiences occurs, and the crucial links to work, career, and full-time employment are made – whether that employment begins for the learner at age 18 or earlier, or later, after post-secondary education. Starting in Grade 10, serious attention must be given to building links between curriculum and work applications.

We believe that every student should have the opportunity to participate in co-operative education, and in many shorter-term work experience activities, and should be exposed to a variety of career models in the classroom and school programs.

This clearly gives employers, unions, and post-secondary institutions a central role in educating high school students. The need for work settings in all kind of sectors, private and public, for-profit and non-profit, would grow enormously. The success of co-operative education programs, in terms of student, employer, parent, and teacher satisfaction, is considerable. But greater commitment from institutions outside the secondary system is essential if more opportunities are to open up for students.

We urge the Ontario government to explore ways of increasing opportunities for co-operative education and other longer-term on-site work/education placements for secondary students. For example, it might be possible to use tax incentives to recognize investments in training, and to work with organized labour to guarantee that secondary school training programs are not, and are not perceived as, threats to employee security.

Older students, many of whom are close to the transition to work and career, would best be served if all career counselling and information agencies in the community – whether local, provincial, or federal – were accessible to secondary students in a system connected to all sources of information on-site, either electronically or by locating various counselling services in the school.

> The Government of Ontario should work with relevant stakeholders to implement a province-wide … system of career/vocational information and counselling services. The goal should be a "one-start" system that provides access to a province-wide network of career/vocational information and counselling services from all points of delivery in the infrastructure. The system should include the full range of existing sources of career/vocational information and counselling services, including schools, colleges, universities, public libraries, federal, provincial, and municipal offices, non-governmental organizations, community groups, and private counselling firms.[15]

International languages

In order to encourage students while they are young to learn or maintain a language through the International Languages program or privately, we propose to provide and encourage the use of challenge exams in international languages beginning in Grade 10. A student could take such an exam in the language of her choice, receive a mark that would be equated to a course level (e.g., equivalent to the completion of one

credit in Italian, or equivalent to the completion of two credits in Mandarin). This would serve the student in two ways: first, she could, if she wished, receive the equivalent of up to two credits (and we suggest imposing this maximum) toward her diploma. This is now done in Manitoba, where students are offered the opportunity to earn a limited number of credits by exam without actually studying the language in school. The option is available both for languages taught in Manitoba schools as well as those that are not, and is parallel to the existing option in Ontario under which students earn a credit for musical achievement by taking examinations at an approved conservatory of music.

In our opinion, more important than being able to earn credits is the opportunity to qualify for enrolment in a more advanced language course without taking prerequisites, by demonstrating the appropriate level of mastery on the challenge examination. We speak throughout this report of wanting to increase flexibility for students, so that they can spend more or less time on a subject or course, depending on their proficiency and the speed at which they progress. We want the challenge exam option, or its functional equivalent, to be available for students in all subject areas. In the case of international languages the difference is that acceleration may not be possible before Grade 10, because the courses may not be offered until that point.

We hope and expect that if, from Grade 10 on, students were encouraged to take challenge exams in international languages, enrolment in those subjects would increase substantially. While a particular school might not have sufficient numbers to establish a course in every language for which one or more students passed the exam, students could be accommodated, either by having courses delivered in the school building or elsewhere in the community, using interactive video, or individually, through courses offered by the Independent Learning Centre (ILC), an agency of the Ministry of Education and Training. The ILC is also an important resource for developing the challenge exams, and for marking them.

We want to see every effort made to provide instruction, individually or in groups, to those students in Grades 10 to 12 who wish to continue their language studies. As part of that effort and encouragement, the Ministry of Education and Training should support the design and encourage the use of challenge exams in international languages, beginning in Grade 10, for students who wish to earn a limited number of credits in a language other than English or French, whether or not they receive instruction in the school system.

Recommendation 24

**We recommend that students have the option of receiving as many as two international language credits toward their diploma no matter where they obtained their training or knowledge of the language(s) if, upon examination, they demonstrate appropriate levels of language mastery.*

Continuity in curriculum

At this point, it is necessary to reiterate some of the ideas and themes developed in Chapter 8, because they relate to matters at least as important in later adolesence as in earlier years.

First, the necessity for students to be known by one teacher who has a commitment to their on-going welfare and progress is paramount. When a student enters Grade 9 or 10, she will have a new teacher-advisor, who will be the student's advisor and advocate for as many years as the student is in the school. (Thus, secondary school teachers, in addition to their subject teaching, will have responsibility for a group of students in the role of advisor.) It is essential that at this "handing-over" point, the new advisor speedily obtain the student's CEP, study it, and confer with the student near the beginning of the term, so that students do not feel that, in changing schools, they have lost the opportunity for a meaningful relationship with a teacher who knows their background and has a commitment to helping them make their way through school.

"My father was having sex with me. I could survive or I could go to school, but I couldn't do both. But I wish I could maintain some contact with the school."

A 15-year-old resident of a group home, speaking at an outreach session with the Commission

voices

It should be evident that in small schools and in the schools-within-schools we have recommended, there will be solid opportunities for each student to know and be known by teachers and fellow students, lessening the sense, which many secondary school students told us they have, that no-one knows or cares whether they remain in school.

From Grade 10 on, the results of alienation from school that some students experience from an early age become most evident. There is the high drop-out rate among some ethno-cultural and aboriginal groups, as well as among disadvantaged students – the culmination of a process that begins much earlier.

While solutions to this problem are dependent on processes that also begin much earlier, teachers and counsellors must be particularly vigilant, in these school years, for signs that students are abandoning hope of graduating. While the Commission believes that the suggestions in this chapter will reduce the drop-out rate by serving all students better, by giving more students a reason to complete high school, by allowing them flexibility and providing support where needed, and by engaging them through curriculum that is of interest and relevance to them, it also recognizes that some students will still require specific types of help, including support and intervention by appropriate agencies and professionals. In addition to the teacher-advisor or home-room teacher concept we have described, it might be appropriate to link potential drop-outs with community mentors, post-secondary students, senior or more successful students, or even with retired teachers.

The Commission strongly urges schools and school boards to identify students at risk of dropping out, and to design innovative programs to help them stay in school.

The transition to work from school (and back again)

Throughout this report, we have said that we expect our recommendations, beginning with solid early childhood education, will lead to students learning more and learning it better, thus reducing the number of discouraged and unsuccessful students who reach Grade 10, and the age at which they can decide to leave school. This chapter has focused on a Grade 10–12 curriculum which, in our opinion, will increase the number of students who graduate, and who go on to post-secondary education. We do not pretend, however, that our suggestions, even if fully implemented, will mean that there will be no drop-outs, and that all graduates will go on to college or university. They should, however, be supported in moving into the workforce, just as drop-outs should be encouraged to drop back into school.

A student who leaves school to go to work, whether before or after earning a diploma, will probably need to learn how to find a job, how to apply for it, and how to evaluate her opportunities. At present, schools have no responsibility in this area, and do not provide the student with a link between school and work. Some students who leave school without a diploma find their way to the Youth Employment Service offices; most probably do not.

As well, students who leave without the diploma, work for a while, and then decide to re-enter school may or may not be encouraged and helped to do so. If, for example, a student left school in mid-course, he or she is unlikely to receive a partial credit, and will have to repeat the course from the beginning. This is another situation in which we recommend that students have the option of a challenge exam, and we believe schools that really want students to receive their diploma will welcome the idea.

We suggest that schools be equipped and expected to maintain an interest in students who leave to go to work, and in drop-outs who choose to re-enter. The career education specialists in the school must take on increasing responsibilities for career counselling older students and make clear that they are eager to help students who have made a decision to go to work. They can provide counselling directly, or can link students, when they are still in school, to such facilities as the Youth Employment Services and other community counselling resources. They can encourage former students

summary

Secondary schools must be reorganized to offer high-quality, engaging, and useful education to the majority of students. Such a program can be offered in three years, rather than four, after Grade 9. Many courses can be delivered in smaller learning units, such as schools-within-schools which may be meaningfully organized around career or subject specialties.

The program should allow students flexibility to choose courses, by subject, which are not streamed per se, but are either more academic in emphasis, more applied, or a balance of the two. Students' choices would reflect their interests and post-secondary intentions, and individual programs would differ accordingly, so that the need to take all or almost all courses at a particular level would disappear.

Within that framework, there are certain commonalities, because they answer the needs of all students, and help to build healthy habits for a lifetime; hence, physical fitness activities and active participation in community service are mandatory for all students.

to call or visit when they need guidance. The role of the school, and the school's career education specialist, should also include responsibility for assisting students to remain in school while they work, as well as to re-enter after they have left to go into the workforce. Challenge exams and prior learning assessments should be available to help former students pick up their formal education at as advanced a point as possible.

We suggest that the school take an active role in maintaining friendly and interested relations with the student who leaves school without a diploma, for at least a year or until she turns 18, whichever comes later.

We further suggest that this activity and monitoring be linked to the welfare system, so that students who leave school before age 18 and do not find work are encouraged to participate in training programs rather than moving onto welfare.

We would also like to see a variety of innovations, in addition to challenge exams and prior learning assessments, that make it easier for students to drop back in. For example, some students might be helped by formal re-entry programs geared to their needs. The programs might include remediation that increased the possibility of a successful re-entry. The school might work with community agencies to find shelter for former students having problems at home.

Depending on their needs, students might also be paired with mentors in the community who could provide moral and/or academic support. (Later, we identify necessary help for adult students facing difficult life situations.)

Recommendation 25

**We recommend that the Ontario Training and Adjustment Board (OTAB) be given the mandate to take leadership, working in partnership with school boards, community colleges, and other community partners, to establish programs that will assist secondary school graduates and drop-outs to transfer successfully to the workforce, including increasing opportunities for apprenticeship and for other kinds of training as well as employment counselling.*

The Ministry, school boards, and the schools should also encourage and smooth the re-entry of drop-outs into the school system.

We have not suggested that the compulsory school-leaving age be raised to 18, because we recognize that many students are impatient to leave school and move into the workforce; nonetheless, we want schools to feel a strong vested interest in, and responsibility for, former students under the age of 18. We believe it is healthy for the school, as well as for the former student, to see that its concern for the students extends beyond the classroom and school walls and into the community – not only while youngsters are enrolled in school, but as long as they are of secondary school age.

Summary

Every structure or curriculum organization that can be proposed for the post-elementary years reflects and embodies the cultural and social strains of the society it serves and from which it draws support. While it is not difficult to achieve general agreement on a common curriculum through the earlier years of schooling – tradition supports it – the lack of social consensus about commonality versus specialization (which underlies the debate about streaming and destreaming) quickly becomes obvious in the later years of schooling.

Because the Commission recognizes that this is so, and because we cannot invent any answer that would satisfy everyone, we are recommending a program that honours the need many students feel for greater coherence and specialization; we are doing so by suggesting that each student be involved in a three-year program organized around a subject, an interdisciplinary area, or a career/professional area. We are aware that the idea of having students aged 15 to 18 choose a subject or career focus may seem to some to be premature specialization. But we have chosen this strategy

We are convinced that one of the most important things the people of Ontario can learn from our most-cited national competitor in educational excellence, Japan, is that it is mainly motivation – not inherent and unalterable differences in ability and intelligence – that distinguishes successful from unsuccessful students.

because it is the best way we know of giving some sense of coherence and purpose to programming after the common curriculum.

The plan acknowledges that students differ in the degree to which they are motivated by academic and applied interests in various subject areas. We are allowing students' programs to reflect those differences in emphasis. While we discussed at length the idea of extending the common curriculum through graduation, as for example the Radwanski report proposed (as in earlier grades, all students take the same courses, at the same level, and in the same sequence) – and while we know there are strong arguments for that plan, we have opted instead for a mixed model, which includes opportunities for specialization.

At the same time, we have built in a very significant degree of commonality, within a semi-specialized program: courses that are not "gate-keeping" for university or college programs should be offered in one format only; students should choose OAcC or OApC courses based on the specialty or major subject they want to pursue, not just on whether they want to go to university, college, or work. As well, we have pointed out the need for a more applied focus in many courses and the importance of making work experience a significant component for all students, regardless of destination.

Again, we are aware that, just as some people will disagree with the notion of earlier specialization by subject, others will reject the degree of commonality and the decreased degree of streaming in our plan, compared to current practice. We are convinced that one of the most important things the people of Ontario can learn from our most-cited national competitor in educational excellence, Japan, is that it is mainly motivation – not inherent and unalterable differences in ability and intelligence – that distinguishes successful from unsuccessful students.

We have no illusion that the program we are recommending is perfect, or that others will not be able to improve it. Indeed, we depend on an informed public and on educational leaders to do just that. We have, however, made a real effort to be true to the principles that informed our discussion of education for children from 3 to 15. Our vision of excellent education for older students depends on the same essentials as those on which we based our suggestions about the common core curriculum.

The program will

- facilitate learning for all students – learning defined as the continuing development of high levels of "literacies," disciplined and rigorous thinking across and within subject areas. At the secondary level, curriculum integration may or may not move in the direction of the four strands of *The Common Curriculum.* But it must be an integration of the entire three-year program: all students should have a sense that their courses form a coherent whole which is clearly related to their future as post-secondary students and as workers. The emphasis must be on making subject-based learning meaningful and useful. Hence, course development at the Ministry level must involve colleges and universities, and course delivery at the local level must involve the business and labour community.
- be based on very clear outcomes, and very flexible about strategies. The Ministry of Education and Training must provide leadership in clarifying the expected outcomes of secondary education; if, for example all students should be able to demonstrate mastery of certain levels in mathematics, or a particular body of knowledge about Canadian history and culture, those outcomes must be clearly stated, and curriculum review and assessment measures developed and used. At the same time, strong encouragement should be given, and resources be developed, to support flexibility at the school and individual level. Smaller modules of instruction, challenge exams, and individualized course delivery offer the kind of flexibility that enables students to make choices about the pace of learning, and encourages them to take responsibility for their education and to persist.

"In the matter of Prior Learning Assessment (PLA), school boards have, for nearly two decades, facilitated the return of adults for secondary school accreditation through the maturity/equivalency credit provisions of the Education Act. The entire area of PLA however, needs much in-depth development and diversification if real access to education/training is to be a reality for most of Ontario's residents. This is especially true for the immigrant population."

Ontario Council of Adult Educators

voices

• build on a strong foundation for program choice, beginning in the elementary years, by providing abundant opportunities for students to gain experience in a variety of work settings through community service and curriculum-integrated activities in the neighbourhood and the classroom; and for reflecting on one's experiences and responses to these situations.
• facilitate a sense of community and supportive relationships among students and between students and teachers, and between the school and the larger community – all on behalf of student learning. Students learn best when they feel that their success matters to their teachers and is valued by their peers (as well as their parents). Such caring and valuing is most likely to thrive when students and teachers, and students and students, know each other as individuals, in a face-to-face community, the kind that may occur in a small school unit, and in a teacher-advisory program.
• be built on a strong relationship between the school and community in support of learners, and thus make significant local resources available to students; at the same time, it reinforces the school's commitment to its part-time and full-time students, even beyond the school walls, and encourages an on-going relationship with them, until they are 18 years old, in order to to protect their opportunities to continue to learn and to thrive.

Many kinds of secondary school programs can be created in keeping with these principles. But any school that focuses on building a learning community, which reaches out to include the diverse learners who are its clients, which is scaled to attend to their individual needs, and which recognizes that it is part of a larger community of learners, will not be structured on the basis of a timetable. Nor will it be organized according to an administrative or bureaucreatic rationale, rather than grounded in the need to enhance most students' opportunities to learn.

Finally, we recognize that parents (as well as students) must have a clear overview of the continuity of learning through childhood and adolescence.

Recommendation 26

**We recommend that the Ministry of Education and Training create a brief and clear document that describes for parents what their children are expected to learn and to know, based on the developmental framework of stages of learning from birth to school entrance, The Common Curriculum, and the secondary school graduation outcomes. Succinct information on college and university programs should be also included.*

This document would inform parents of what it is that children can be expected to learn, know, and be able to do as they develop into adult learners.

Adult education

Secondary schools are serving a rapidly increasing number and proportion of adult learners. In 1991–92, about 13 percent of all secondary day school students were 19 years or older, and half of that group was 22 or older; the average age of the adult students was 30.

While the adult sector of the secondary school population grew by 24 percent between 1990 and 1992 alone, school boards have no obligation to provide adult education. When spaces are filled, adults are turned away, in contrast to the legal obligation schools have to students between the ages of 4 and 21. Legislation and space for adult learners in the free public education system, until completion of the Ontario Secondary School Diploma (OSSD), have not kept pace with our social commitment to lifelong learning.

Recommendation 27

** We recommend that, in order to ensure that all Ontario residents, regardless of age, have access to a secondary school diploma, publicly funded school boards be given the mandate and the funds to provide adult educational programs.*

Many adults working toward the OSSD are immigrants educated in other countries. In other cases, the adult learner was educated in Ontario, dropped out of secondary school, and has spent many years in the workforce. While there is a

opinion

"Adult education is vital for children's education, because it is adults – parents, teachers, politicans, technicians, ruling parties, etc. – who are in charge of educating children at home, in school, and through the media, and deciding what, how, and why children need to learn. Hence, the usual dichotomy between children's education versus adult education (usually expressed in terms of allocation of resources, especially when these are scarce) is a false dichotomy."

International Council for Adult Education, submission to the International Commission on Education and Learning for the Twenty-First Century

mechanism in place for assessing prior learning as a vehicle for granting credit equivalency for courses taken elsewhere or for work experience, many observers suggest that it is under-used, and that, as a result, many adult learners are required to begin or resume their secondary education at an earlier point than is necessary.

We believe that a more consistent application of the prior learning assessment strategy is necessary, and that the PLA options should include an examination for a secondary school equivalency diploma. The Ministry of Education and Training should co-ordinate a major exploration of the General Education Diploma and other equivalency measures, building on work already being done in the college sector, in preparation for instituting an equivalency examination in Ontario. A similar mechanism exists in many other Canadian jurisdictions, and is particularly relevant in Ontario, which has more immigrants than any other province. Furthermore, we believe that the same process of accrediting prior learning, wherever gained, makes equally good sense at the college and university levels.

Recommendations 28, 29

**We therefore recommend that a consistent process of prior learning assessment be developed for adult students in Ontario, and that this process include an examination for a secondary school equivalency diploma.*

**We further recommend that the Ministry of Education and Training, with its mandate which includes post-secondary education, require the development of challenge exams and other appropriate forms of prior learning assessment by colleges and universities, to be used up to and including the granting of diplomas and degrees.*

We have suggested that prior learning assessment and challenge exams are an appropriate and essential part of a flexible learning system for all learners. Adults need the same kind of flexibility, and probably need it more often if they are to succeed in the formal education system.

Similarly, other mechanisms for increasing flexibility in secondary schools – for example, breaking courses into smaller units or modules, and greatly facilitating school re-entry, are hallmarks of a system that is responsive to adults as well as to adolescents. Moreover, expanding co-operative education opportunities and greatly enhancing career education and counselling, as we have recommended for secondary schools, is extremely important to adult learners.

Adult education in day schools may or may not be related to labour force development. While many adults may wish to obtain the OSSD in order to make themselves more marketable, others may want to obtain a general education for their own intellectual and cultural development, apart from job or career considerations. This is also true of adults taking such non-credit courses in the publicly funded school system as English or French as a second language, as well as basic education (literacy and numeracy). While the Ontario government has made clear its commitment to adult education when that is directed at increased labour force participation, it has not made the same assurance for general education for adults.

In 1993, the Ontario Training and Adjustment Board (OTAB) – Conseil ontarien de la formation et de l'adaptation de la main-d'oeuvre (COFAM) – was created to co-ordinate labour force development programs and services. It is governed jointly by representatives of education, training, business, labour, and equity groups. Its mandate covers training of all sorts, for the employed and the unemployed, and includes apprenticeship, entry-level training and retraining, and literacy and youth employment services (counselling and generic job-search skills training).

success story

London Board of Education

Many individual schools in the London Board of Education have been implementing successful programs and services for the benefit of their learners. Here is an example:

The School of Continuing and Alternative Education is offering a co-operative program for the second year with Canadian Tire Association Stores. Adult learners participating in the 17-week program earn credits that enable them to earn a high school graduation certificate, while they also gain retail experience and employment skills. In the first year of the program, all students earned a graduation diploma, and several were offered jobs with the company. The school also recently reached a contract with jobsOntario and Liffey Custom Coatings to offer English-as-a-Second-Language training at the manufacturer's worksite. Liffey built a classroom at the plant for the programs.

Although OTAB is committed to lifelong learning, that commitment is placed within the framework of labour force development. This has led to concerns about adult literacy learners who might not be workers or potential workers (seniors, for example, and others at home who are crucially important to their children's learning) and who wish to improve their literacy skills for their own personal development. We believe that society benefits from a citizenry that has a sound basic education, and we are acutely aware of the advantages parental literacy gives children.

Recommendation 30

**We recommend that the right of adults to pursue literacy education must be protected, regardless of employment status or intentions.*

The need for adult literacy programs not tied to workforce status is particularly acute in the Ontario francophone community, both for adults as citizens and for adults as parents. It is particularly difficult for children to become literate in French in an anglophone society when their parents cannot actively support their literacy development.

Recommendation 31

**We recommend that COFAM/OTAB immediately define and set aside, for short- and medium-term adult literacy programs, a francophone allotment that is not linked to participation in the workforce, in addition to the francophone programs linked to workforce status and intention.*

As a Commission concerned primarily with the education of children and youth, we are aware that increasing parents' and grandparents' literacy has extremely positive implications for the educational success and life opportunities of their children. For this reason, and because we think education must be a right for all citizens, regardless of age, we believe that all adults have the right to a basic education, up to and including the OSSD, and that this right must be guaranteed, irrespective of employment status or potential.

Adult education and training are now being delivered by a wide variety of public and private institutions and groups, profit and non-profit. It seems quite likely that the number of adults being served will grow in future, as will the number of services being offered such as the training programs (unrelated to the secondary school diploma program) offered by school boards in partnership with government, business, and labour, and now regulated through the Local Training and Apprenticeship Boards (LTABs).

The many training facilities that school boards have available make them obvious candidates for increased delivery of programs on contract. While we heard arguments in favour of a multiplicity of delivery agents for both education and training of adults, and while we have no reason to doubt that different kinds of delivery and deliverers can appropriately meet the needs of different learners, we are concerned about the lack of an inventory of existing programs, either as a guide to learners and to educational and employment counsellors, or as a guide to government and non-governmental organizations concerned about planning and rationalizing programs.

Adult education and training clearly are a major and rapidly expanding part of our learning system. We want to ensure that adult education is stabilized and inclusive, as part of a lifelong learning system and in order to make efficient use of scarce resources.

We strongly suggest to the Ministry of Education and Training that it place restrictions on creating new adult educational and training programs or on discontinuing existing ones, until an inventory of such programs has been completed, and major deliverers have had an opportunity to rationalize existing services.

We would hope that, in time, there would be a central information source on all kinds of adult training and upgrading programs, accessible from anywhere in the province through a 1-800 telephone number, and by modem, with the information also on CD-ROMs available at community information centres and libraries.

Endnotes

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4 S. Crysdale and H. MacKay, *Youth's Passage Through School to Work* (Toronto: Thompson Educational Publishers, 1994).

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13 Ontario Association for Mathematics Education and The Ontario Mathematics Coordinators Association, *Focus on Renewal of Mathematics Education: Guiding Principles for the Early, Formative and Transition Years, A Document for Ontario Educators* (Markham, ON, 1993).

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10

Supports for Learning: Special Needs and Special Opportunities

Throughout this report, we make the case for a learning system that is rigorous and focused, that communicates a sense of purpose and challenge to students and, at the same time, acknowledges that many non-academic needs of young people must be met at school, because that is where young people are.

We also argue that the system must support students as individuals: it must be flexible and allow for different rates of learning as well as learners' different strengths and needs. Care and concern for students must be one of the essential elements of that system. Care and concern for individuals are manifested when one person is responsible for monitoring the student's progress; when smaller teaching and learning units are created; when career education and counselling are treated seriously.

A system built on academic rigour, flexibility, and continuous student-teacher contact will meet the needs of most students and successfully start their transition to adulthood – as learners, workers, citizens, and parents. Others – students with disabilities, with somewhat severe emotional problems, or those from homes in which neither French nor English is spoken – will need more. So will students whose pace of learning in some or all areas is outside the usual range, either because it is exceptionally slow or exceptionally rapid.

We have already suggested that people other than teachers may be able to help all kinds of students – not just those who require special support – leaving teachers free to focus on curriculum. We include as examples in this category outside experts in safe school programs, and conflict-management training.

In addition to benefiting from these school-wide programs, there are students who require counselling individually or in small groups, whether only for a short time or more intensively and for the longer term. In either case, there must be an adult, from outside the classroom, who will help when help is needed, whether that adult is seen regularly or only occasionally.

The point is that schools have students of all types. In this chapter, we consider the issues related to needs beyond those that can and should be met by well-prepared, thoughtful teachers. We also look at additional supports for learning, language facility, and for children with special physical and emotional needs.

We will discuss below four kinds of special situations: those to do with language/culture background; those that derive from a disability, either physical or cognitive; the needs of students who learn at a substantially different pace from most; and those that are related to emotional problems.

Supports for some students

Support for students with different language backgrounds and different learning needs based on language

Many submissions we received spoke of the importance for students of learning languages, and of becoming fluent in one of Canada's official languages. Learning a language and learning through language – the issue of literacy and literacies in English/Français – is basic to the entire discussion of curriculum: nothing is more essential to success in learning than having a high level of competence in the language of instruction. Students who enter school speaking neither of the official languages will likely need special help. We will discuss the need for programs to support these students: English as a Second Language (ESL) and English Skills Development (ESD) in English-language schools, and their French equivalents, Actualisation linguistique en français (ALF) and Perfectionnement du français (PDF). ALF and PDF are just beginning to be implemented in French-language school units to support both Section 23 (Charter rights) and francophone immigrant students. A related issue, the use of the student's first language as a language of instruction, is discussed as an alternative way to support students who have little or no knowledge of the language of instruction in English-language schools.

The need to ensure that all students have access to the second official language, French or English, also underpins

Students who enter school speaking neither of the official languages will likely need special help; some youngsters whose parents hold rights to have their children educated in French may not be sufficiently fluent to learn in French.

the common core curriculum. Competency is enormously important both practically (it broadens careers and job opportunities) and symbolically, because it adds to our sense of Canadian uniqueness. We have already recommended that multilingualism be supported throughout the common core curriculum and that in the specialization years, students maintain international languages, acquire additional languages, and increase their linguistic fluency.

Acquisition of an official language by non-native speakers of English or French

Both the French- and English-language school systems focus on the development of literacies in the curriculum. However, there are key differences between them: in addition to the different social/societal context that influences first- and second-language programs offered in French-language schools, the needs of students requiring second-language support are different in the two systems.

In French-language schools, some ALF/PDF students are immigrants, but more are likely to be children of Franco-Ontarian descent. These are youngsters whose parents, under Section 23 of the Charter, hold rights to have their children educated in French, but who may not have French as the language of the home.

In English-language schools, by contrast, the overwhelming majority of ESL/ESD students are immigrants, with a small number being native-born Canadians whose families generally do not speak English at home. (The latter group will benefit very considerably from enrolment in the ECE program described in Chapter 7.)

While it is often said that Canada is a land of immigrants, it is also true that Ontario welcomes more immigrants than any other province, and that Metro Toronto attracts more of those immigrants than any other city in Canada. (See Chapter 2 for a more detailed demographic description.)

School systems must educate those students and help most of them to learn at least one official language; as well, these youth must continue to be, or in some cases re-establish themselves as, learners, at the same time as they respond to all the other challenges of leaving one society and culture for another.

All this is happening at a time when the increasing number of immigrants who speak French, or who choose French as their official language, are making Ontario – Metro Toronto and Ottawa, in particular – their destination. The new influx requires a new response on the part of Ontario's French-language schools.

The task, then, is to improve and enrich spoken French while furthering the acquisition of the usual basic skills. This calls for special pedagogical strategies. In this context, in addition to the core curriculum, which sets out the desired outcomes of learning the language of instruction, we support the vision for Franco-Ontarian education presented in the documents prepared by the Ministry of Education and Training. One of the three documents published consists of ALF/PDF curriculum guidelines. The ALF curriculum will enable students having limited or no fluency in French to acquire basic competence in French and to follow the academic program with success. Certain students, owing to their academic background, need the PDF program, because they either have had no schooling or must adapt to their new cultural setting.

ALF/PDF clientele consists mainly of Charter rights holders who have undergone a process of assimilation, and immigrant students. These students are evolving, for the most part, in a social environment where the act of setting foot in a school often means entering a new linguistic and cultural universe. The messages conveyed at school may appear to conflict with those they receive in the home and create in the students a certain ambivalence about their language, their culture, even their personal and social identity.

Many people told the Commission that the present structure of support for acquiring one of the official languages

Available research indicates that while immigrant students may achieve oral fluency in two years, it may take from five to seven years to reach the full social and academic competence necessary for success in secondary school and post-secondary education.

does not do the job. Many francophone parents said they support ALF/PDF programs because those help the French-language school face the difficult challenge of recapturing the linguistic heritage of some students, while enabling those who are already competent in French to accelerate their learning. In this context, the Early Childhood Education Program we are recommending would give children a significant head start in French language as well as learning skills to Franco-Ontarian children.

Available research indicates that while immigrant students may achieve oral fluency in two years, it may take from five to seven years to reach the full social and academic competence necessary for success in secondary school and post-secondary education.[1]

Do students get full support for that period? Do they require such support, or does it inevitably take time and practice to achieve written fluency? Or, as some immigrants argue, is the period of five to seven years unrealistically long?

There is no research to indicate how long it may take francophone students to learn both social and academic language when something other than French is the language of the majority. However, there is clear-cut research on the need for institutional support for French if it is to survive in a dominantly English world. And it explains why francophone presenters at the hearings emphasized the need for institutional support for French-language education from "the cradle to the grave."

Many anglophone parents are concerned that there have been serious cuts to the ESL/ESD programs offered by many English-language boards, and that some current ESL/ESD programs are not effective.

The Commission is concerned about the decision of some boards to make substantial ESL/ESD cuts, while other programs – some mandatory (e.g., classes for gifted children) or some optional (e.g., French immersion) – are spared the cuts. Without adequate support, the majority of immigrant children, particularly those in their late childhood or early adolescence, may be condemned to lower educational attainment and career success.

This is not to suggest that there is or should be only one model of ESL/ESD. At present, the delivery of ESL/ESD is based largely on withdrawing the student for some part, or even all, of the school day; the student is given instruction in English while her/his classmates are learning other subjects.

Generally, the ESL/ESD teacher does not speak the language(s) of the immigrant student(s), and the class itself is usually multilingual; students may not understand each other.

Occasionally, schools will try a different structure: the ESL/ESD teacher works with the regular teacher in the regular class to give support to the immigrant student. Research does not clearly favour one delivery model over the other, although it does suggest that withdrawal from the regular class is valuable to many students as a reception program, orienting and "cushioning" them at a time when many feel bewildered and vulnerable. However, that advantage may be counterbalanced by the likelihood that students are missing much of the regular curriculum. As far as promoting first-language acquisition, however, it offers no clear advantage (or disadvantage).

A new and, we believe, very exciting model is being developed in Toronto. We visited Alexander Muir/Gladstone Avenue Public School, where all members of the staff have developed knowledge of second-language acquisition through an ESL course. Rather than seeing the students' lack of English-language skills as a deficit, teachers emphasize adding English to the languages that students bring with them to school.

Immigrant students[2] are provided with some curriculum content (such as science or history) in their first language within the regular classroom, using the assistance of "language tutors." Some of the tutors are paid (e.g., the school's heritage-language instructors and ESL teachers) and some are volunteers. The practice is supported by research that indicates that heritage-language instructors can effec-

The object of ESL/ESD and ALF/PDF is not to produce native-level ability. It is to bring students to the point at which, like others in the class, they are able to learn.

tively support students in curricular areas.[3] Therefore, through the transitional use of their language, students learn their science and history along with their peers, maintaining and developing their literacy in their first language and acquiring English, which will gradually replace their heritage language for all of their instruction.

Whatever the model, it is clear to us that French-language and English-language schools with significant immigrant populations (and, in the case of French-language schools, Charter rights holders with little or no fluency in French) have a challenging task requiring resources. In our opinion, it means that ESL/ALF programs, in whatever form, must become mandatory: the staffing formula used to decide the number of ESL/ALF teachers each school and school board should have must be protected, and teachers should be used in a way that helps students who need language-based support.

While we do not make a detailed recommendation on what the staffing formula should include, we note again that available research shows that while oral fluency can be achieved in just two years, and while some immigrants acquire written fluency fairly rapidly, it may take much longer for many students to acquire the level of second-language skills needed in post-secondary education. On the other hand, some immigrants acquire written fluency in significantly less time.

But the object of ESL/ESD and ALF/PDF is not to produce native-level ability. It is to bring students to the point at which, like others in the class, they are able to learn – listening to the teacher, asking and answering questions, reading from the board or the assigned book, and so on. The difference in the length of time it takes to reach this level may have to do with a number of factors, including school experience in the country of origin, and the specific original language and its relation to English or French.

This suggests to us that the formula should perhaps provide for more intensive support in the first six months to one year after arrival in Canada and, after that, the student would slowly be integrated into regular classrooms for all or most of the day, with the possibility of continuing ESL support being delivered in the regular classroom.

Recommendation 32

**Therefore, the Commission recommends that the Ministry make it mandatory for English-language schools to provide ESL/ESD, and French-language school units to provide ALF/PDF, to ensure that immigrant students with limited or no fluency in English or French, and Charter rights holders with limited or no fluency in French, receive the support they require, using locally chosen models of delivery. In its block-funding grants, the Ministry should include the budgetary supplements required to allow the schools to offer these programs wherever the community identifies a need for them.*

The program at Alexander Muir/Gladstone raises the issue of the transitional use of other languages as languages of instruction. A goal of all programs designed to give immigrant students facility in English as the language of instruction must be to add English to the student's language repertory. In so doing, the school is helping the learner to continue the conceptual development already begun in the first language, and to build linguistic and conceptual skills in English.

In a society such as Ontario's, where an official language minority has a separate school system to support and promote that language, the parallel situation does not hold. Charter rights students who have English as a language of use do not need it emphasized in their early years in a French-language school, because English so dominates everyday life. If there is going to be serious erosion of the minority language (as is the case in Ontario for French), research indicates that students should receive a minimum of 80 percent of their instruction in that language, so that they develop threshold levels of competence.[4]

Research provides evidence that when students are given support in their first language, they are more likely to learn both the first and the second official languages.

On the other hand, the Somali child who has just arrived in the French-language school may need some initial support in the principal language of the home, if it is not French. What is clear is that all students' languages must be valued so that they will feel accepted and be ready to learn.

It is crucial to value the first (non-English/non-French) language rather than giving the impression that it and, by extension, the student's native culture are unimportant or disposable. Support for "heritage" (international) languages helps all students develop a stronger identity and appreciate the validity of all cultures and languages.

Greater flexibility in the languages that may be used for instruction would support the intent of the anti-racist and ethno-cultural equity policy announced in 1993 by the Minister. One of the policy's core elements is to "affirm and value the students' first language."[5] The policy announcement goes on:

> Competence in the first language provides students with the foundation for developing proficiency in additional languages, and maintenance of the first language supports the acquisition of other languages.

In other words, students who are given support in their first language are more likely to learn English/French well if their first language is strong, rather than if it is weakened or abandoned. This is why in Australia, the State of Victoria provides for second-language students to "consolidate their knowledge and understanding of the mother tongue ... and use this language in a range of situations, including in the school community."[6]

Other research provides evidence that when students are given support in their first language, they are more likely to learn both the first and the second official languages, compared with English-only students and to non-official-language students who had not achieved or maintained literacy in their heritage language.[7]

The Toronto Board of Education reviewed research in this area and it, too, found that students given support in their first language are likely to do better learning English, that literacy in English or French (or both) is likely to be enhanced through the support of other languages.[8]

Some researchers caution that bilingual programs may be only marginally successful in increasing achievement unless teachers, not just teaching assistants, are genuinely bilingual. As well, gains are likely to be quite limited if teachers do not use effective pedagogical strategies, if programs are reorganized too frequently, if teacher turnover is very high, or if students are moved out of the bilingual/transition program too early.[9]

Providing more flexibility in using other languages to support the teaching of content, such as science, history, and geography, offers schools greater choice in how to support students who arrive at school not able to speak English/French. While the present Education Act provides flexibility in terms of using other languages transitionally, there is a potential for greater success in learning English/French if schools are encouraged to provide bilingual/multilingual reception centres and bilingual programs. (When we speak of "bilingual," we mean programs and centres in which languages other than English/French are used.) We believe this flexibility is important and should be utilized more often.

We acknowledge that if they are to provide more flexibility, teachers, school boards, and parents must be involved at the local level in designing programs. This is particularly true in the French-language schools, where students already face the challenge of learning French in an English environment.

Researchers told us that French-language schools require a very strong in-school French ambience if students are to learn French successfully. A crucial difference between the English- and French-language schools is that a student in the former is immersed in an English-language environment outside school, while the student in a French-language school is much less likely to be immersed in French outside

summary

Nothing is more essential to student success in school than mastery of one of the official languages of instruction. Thus, programs to help students acquire proficiency in English, French, or sign language must be fully supported.

school. Therefore, we recognize that French-language schools and the communities they serve will have to develop some models of language instruction that are specific to their needs while still valuing the heritage language the student brings to the school. What is crucial is that French-language schools maintain a supportive environment for the transitional languages while, at the same time, enabling students to learn in French.

We are impressed by the research into the ability of students to learn both official languages when their mother tongue is recognized and supported. And we believe that Alexander Muir/Gladstone offers a strong model, one that merits further study.

Given the linguistic diversity in Ontario, and the province's tight financial resources, it may seem difficult to imagine extending and strengthening the Alexander Muir/Gladstone model. But strong commitment at the school and community levels tends to mitigate financial constraints. Embracing this model and giving it life will require strong community support by volunteers willing to assist in the classroom, and in locating or developing materials. It is the kind of program that can be supported in significant measure by people in the community who speak the languages of the students. It can also be used by secondary students as a community service option, in keeping with our recommendations in that area.

We encourage schools to use other languages of instruction for transitional purposes, and urge that the Ministry continue to provide for and encourage greater flexibility in the use of other languages of instruction, in order to meet the transitional needs of immigrant and other students, and that it actively encourage and support more school boards, where appropriate, to do the same.

Additional languages of instruction (bilingual and immersion programs) for English-language schools

Another way to help students develop high-level skills in a language is to use it for other purposes. In Ontario, we have the model of French immersion and extended French, in which students in English-language schools are taught all, most, or some of their subjects in French instead of being educated in English all day. This is permitted because, like English, French is an official language of instruction. Under existing provincial legislation, parallel programs in other languages – German, for example, or Russian – are not permitted.

A number of English-language submissions suggested that other languages be permitted for use in instruction. For example, the Chinese Lingual-Cultural Centre of Canada said, in a written brief, "The time has come to amend the Education Act to replace the stipulation that only English or French can be used as languages of instruction." Similarly, a coalition of three Spanish community organizations recommended to the Commission:

> That the Education Act be amended to allow the use of the Spanish language as a vehicle of instruction. The use of Spanish as a language of instruction would ... enhance the opportunities of Spanish-speaking students to develop fluency in an important international language.

The Heritage Language Advisory Work Group also recommended that "the Education Act be amended to permit the use of instructional languages other than English and French."[10] As the Work Group said, "Permitting school boards flexibility in program implementation represents an investment in Ontario's linguistic resources." Such programs already exist in British Columbia, Alberta, Saskatchewan, and Manitoba.

We do not recommend a change in Ontario's legislation with respect to languages of instruction at this time. We strongly support the use of other languages as a transitional strategy, which is already permitted, and we have already suggested that more flexibility be applied in this regard, to encourage and enhance more transitional language programs. We also support a learning system that places

more value on languages as subjects, and we hope that many more students will learn third (and fourth) languages, and take courses in them at the secondary and post-secondary levels. Our discussion and recommendations in Chapters 8 and 9 support that development.

But we are very concerned that all students in Ontario be truly literate in one of the official languages. In our view, the school system is obliged to help students function at a high level in English or French, and to gain a reasonable knowledge of the other official language. We appreciate the value of the existing, optional International- (formerly Heritage-) Language program, elementary, but we are not prepared to go well beyond that by suggesting that students be educated in an immersion or bilingual program in any one of a vast number of non-official languages.

The acquisition and use of sign languages by deaf students

The Commission heard from a number of parents and others concerned about the language of instruction for deaf and hard-of-hearing students, and the role of ASL or LSQ in their education.

There has been extensive work in this area over the last few years: in 1989 and 1990, three reports were issued, one dealing with deaf students in anglophone schools, one on students in francophone schools, and the third on deaf students taking post-secondary education.[11] A series of recommendations was made, including enhancing the use of sign language.

In our view, while a great deal has been accomplished in research and policy review, implementation remains the issue. In 1993, the Legislature approved the use of either ASL or LSQ as languages of instruction, a move we support.

We believe, however, that there is a need to give full effect to this decision. While it is now possible for deaf persons to obtain an Ontario Teacher's Certificate, this can occur only through training in ASL in an English-language faculty of education. There is an urgent need to develop a program in a French-language faculty to support the training of LSQ teachers, and the development of teaching materials for the francophone sector.

We also support recommendations that deal with providing all students with the option of studying sign language for credit or as a "heritage language" in school.

Voices

"Two of my five children were born with severe to profound hearing loss ... Currently all five of my children attend neighbourhood schools. The hearing-impaired children are in regular classes and are able to succeed in this setting because they receive special support. They have each been assigned a teacher's aide who makes sure they understand the lessons and reinforces and explains new concepts. They are also withdrawn three times a week for individual instruction with a teacher of the hearing impaired, and in class they use an FM system which enables them to hear the teacher clearly. My children are making progress, although at times it seems painfully slow. I am encouraged, however, when I talk to parents of other hearing-impaired children who have attended Ottawa schools and have had remarkable success. I look forward to the time when all five of my children are independent, self-supporting individuals – a prospect which would not exist without the special education they are currently receiving."

Member, Home and School Association, MacNabb Park Elementary School, Ottawa Board of Education

We believe that the direction already taken in support of ASL and LSQ is appropriate. Parents should have the option of having their deaf children educated using ASL or LSQ as a language of instruction; those who do not wish to do so should be able to continue to choose existing options.

We also recognize the considerable debate that has taken place on this issue, when the 1989–90 reports were released, and again in 1992–93, when the implementation reports were published.[12] Because we dedect a growing consensus around the recommendations of those reports, which focus on providing realistic options, we urge the government to move forward in their direction.

Support for students with disabilities, and for slow and fast learners

Recent figures indicate that students with disabilities account for more than 6 percent of all Ontario's school-age children.

Disabled Students in Ontario
Numbers and Percentages[13]

	Number of Pupils	% of School Pop.
Low Vision/Blind	910	.05
Orthopaedic	1,410	.07
Learning Disabled	72,790	3.70
Speech & Language	8,664	.50
Autism	2,081	.10
Hard of Hearing/Deaf	2,559	.13
Behaviour	9,311	.47
Multiple	4,362	.22
Educable Retarded	15,963	.80
Trainable Retarded	6,037	.30
Total Population Identified: 124,087		
Total School-Age Population: 1,982,994		

*From Statistical Services Section, Policy Analysis and Research Branch, Ministry of Education for 1990–91. Figures include enrolments at the provincial schools.

During the public hearings, we were often moved by the testimony of parents of children with disabilities. Their devotion to their children, and to others like them, is not only admirable but frequently extraordinary. When schools and the education system have supported the needs of their children, their gratitude and willingness to work hard and co-operatively with educators is limitless.

They were at pains to tell us both how well the system can work, and how vulnerable they and their children are when it does not. They pointed out, for example, that although Ontario's legislation on behalf of disabled students is a model for other provinces, its implementation sometimes falls far short of stated policy. In some areas, they told us, there is a lack of accountability that permits very uneven implementation by school boards – for example, in due process and special-needs funding.

We strongly support the position that policies are of limited value unless they are seriously monitored and accounted for at the local and central levels. While we can and do take pride in the degree to which Ontario is on record as caring about, and dedicating resources to, the education of students with special needs, we certainly

"While mainstreaming blind students has helped enormously in the integration process, it has meant that the teaching of Braille and other specialized skills hasn't received the same priority in the curriculum ... Braille is imperative to any blind person who wishes to function fully in society ... nothing else will do but to have Braille compulsorily taught to all blind and visually impaired students!"

Wanda Hamilton, Canadian National Institute for the Blind

voices

support the Learning Disabilities Association of Ontario in its request

> that there be adequate accountability measures introduced and implemented to ensure that the educational system of Ontario, while delivering an excellent level of education to all, remains focused on children and their needs.

Physical disabilities

The public education system recognizes that it has a responsibility to provide education for all school-aged persons (until age 21), regardless of level of ability or of disabling conditions. In recent years, legislation and practice have moved away from separating or segregating students with disabilities or different abilities to integrating or "mainstreaming" them in regular schools and classrooms.

The major issue raised in hearings and briefs around the education of the differently abled was integration. It is generally supported, but particular concerns are raised by various members of the public. Parents who favour integration told us that some integrated programs lack some of the extra supports that were promised or are necessary; and others, who favour centralized or residential programs for some types of students, feel that the number of such programs, or the distance between delivery sites, is inadequate, given the need.

In some cases, parents and advocates for students with disabilities are concerned that integration may not be the best solution. For example, within the deaf community, some parents and teachers believe that the best educational facilities and opportunities are found in the residential schools, while the majority of families choose to have their children educated in the regular schools.

The government has acknowledged that both kinds of education are appropriate, and has continued to support them; it plans to provide a residential facility in the northern part of the province. The Ministry of Education and Training has responded positively to the committees that advised it about education of the deaf anglophone students; it must respond as well to the needs of the young deaf francophones, including the request for a residential facility in the north, for teacher preparation, and the availability of texts and materials.

The Commission supports the policy of making both segregated and integrated facilities available where demand for both exists, and where there is reason to believe that both provide good learning environments. We recognize, however, that the cost of education in residential facilities is much greater, and suggest that before the increased expense can be justified, the particular advantages of a residential program must be clear to educators as well as to parents.

In most cases, parents of children with disabilities opt for integrated settings because they are eager to make sure that their children will enjoy a normal childhood, and attendance at the local neighbourhood school is part of that normal childhood. But integration and mainstreaming have costs: specialized knowledge and technology are lost and are not, and cannot, realistically be available in every teacher, in every neighbourhood school, in every classroom.

Moreover, mainstreaming means that children with particular learning differences or disabilities will not have the company of peers with whom communication may be easiest and most natural to them. This is probably truest for deaf children: in an integrated classroom, there are not likely to be other students with whom they can sign; and even where there are either human or technical supports for deaf and hard-of-hearing students, there are likely to be fewer of them. Similarly, blind children educated in integrated settings may have access to fewer books and materials in Braille than are available in classrooms or schools designed for the education of the blind.

While some of these deficiencies in resources can be remedied through the use of itinerant specialists, distance education, information technology, and shared resources, it is unrealistic to expect that every neighbourhood school will

observation

Research has begun to show that prevention and intensive early intervention – when children are learning about reading and are learning to read – may prevent a large proportion of so-called learning disabilities, many of which are not really distinguishable from the general early academic deficits that are more characteristic of boys than of girls, and that of more children from disadvantaged than advantaged neighbourhoods.

be as well equipped and well staffed to meet special needs as are schools and classrooms dedicated to that task.

The public education system has an obligation to educate all educable children and youth, and it must be responsive to the parents and public who support it. But members of the public must also be aware of the varying advantages and possibilities, as well as the costs, of segregated or concentrated, compared with fully integrated, classes and schools. It is not realistic to expect that all the advantages of one kind of setting can be found in the other.

No one countenances the segregation of children in wheelchairs in special classes because some school buildings do not have wheelchair access. But making adjustments to entries, exits, and washrooms will still not enable youngsters with all types and degrees of disability to be accommodated in neighbourhood schools.

Learning disabilities, learning disadvantages, and slow learners

We have already commented on how touched we were throughout our public hearings by the many heart-wrenching submissions we received from young people with disabilities, from their parents or teachers. Government has a responsibility and has made a commitment to provide adequate educational facilities for learners with disabilities, in special facilities or in integrated mainstream schools.

From what presenters told us, it is clear that this commitment is not yet being fully realized. It must be. Teachers in integrated classrooms cannot be expected to teach anyone, with or without disabilities, unless they have the necessary and proper support for doing so. Its absence undermines the original rationale for integration for all students.

While physical disabilities may come to mind first when special needs are being discussed, by far the greatest number of students classified as having special needs are "learning disabled." They account for 59 percent of all students diagnosed as disabled.

Although learning difficulties are traditionally labelled and defined in ways that parallel medical problems (diagnosis, prescription, and treatment), the fact is that the medical model does not work very well in this context.

For some time, educators have observed that the labels assigned to children with learning difficulties change over time and location, which suggests they lack clear definition. There are two phenomena in this regard that suggest caution:

- When schools are given large budgets earmarked for the learning disabled, the number of children who are identified this way expands to absorb the available budget;
- In experiments where all children of a particular age or grade have been given the "diagnostic" tests for learning disabilities, results indicate that a huge proportion would be so labelled, although most of the students involved exhibit no learning difficulties.[14]

Research has begun to show that prevention and intensive early intervention – when children are learning about reading and are learning to read – may prevent a large proportion of so-called learning disabilities, many of which are not really distinguishable from the general early academic deficits that are more characteristic of boys than of girls, and of more children from disadvantaged than advantaged neighbourhoods.

The overlap between "learning disability" and the learning disadvantage associated with poverty is very great, and the distinction between special education and what is sometimes called compensatory education is so unclear as to frequently make the differing "diagnoses" of dubious value.[15] For that matter, there is no indication that these different labels identify difficulties that require different, rather than the same, treatment.[16]

It is increasingly clear that children who have difficulty learning to read, for whatever reason, are likely to fall behind and remain behind throughout their schooling, to repeat a grade, and to drop out before completing secondary school. The evidence that many – not all – of these failures can be

avoided with better early literacy education is a sound reason for hope.

This issue causes great personal anxiety to many Ontario citizens, and it is important to be as clear as possible: the unhappy fact is that some children have difficulties in learning that will not be solved either by prevention through good early education or by early and intensive intervention.

At the same time, there is reason to think that a large proportion of those now labelled learning disabled – perhaps as many as half – could avoid the stigma (and expense) of carrying that label and, most important, could learn to read at the same pace and with the same success as their peers.

What they may require is the advantage of early education and excellent instruction in language skills in the primary classroom, supplemented where necessary by intensive, individual tutoring by a skilled teacher during the primary grades. A renewed focus on excellent pre-service and continuing teacher education in the pedagogy of literacy for primary teachers, plus the literacy guarantee we described earlier (any child who showed signs of difficulty in reading by the end of Grade 1 or early Grade 2 would receive intensive individual assistance for weeks or months), is the best strategy for preventing many apparent "learning disabilities."

It would seem that many children are suffering not from learning disabilities but from what we might term "instructional deficit disorder," were we to embroider on the elaborate medical terminology typical of special education, which too often assigns cause with no effect.

Recommendation 33

**We recommend that no child who shows difficulty or who lags behind peers in learning to read be labelled "learning disabled" unless and until he or she has received intensive individual assistance in learning to read that has not resulted in improved academic performance.*

We are thinking not only of children in the primary grades, but also of those who enter Ontario schools later, with a history of irregular school attendance, or with little facility in English or French.

In recent years, as the term "learning disabled" has become more popular, the number of children to whom the term is applied has increased, while the number described as

"Teachers and parents – and all of us – need to learn more about how to create meaningful learning experiences for exceptional students participating in regular classroom activities. We also need to learn more about how parents and teachers can work co-operatively to make assessment and evaluation a positive experience that promotes students' academic growth without eroding their sense of self-worth or encourages the gifted student to set even higher standards of achievement. Parent education as well as teacher in-service are critical factors in the successful implementation of *The Common Curriculum.*"

Special Education Advisory Committee, London and Middlesex County Roman Catholic School Board

voices

"slow learners" has decreased – especially in middle- and upper-income neighbourhood schools. We are not the first to observe that this can hardly be a coincidence – that diagnosis may be more tied to fashion and to socio-economic perceptions and assumptions than to reality.

As with all other human behaviour, there are variations in learning rates. While some children labelled as learning disabled may have an early academic disadvantage (which, if addressed appropriately, will not become a lasting problem), others may be slower-than-average learners.

Some people learn some or most things faster or more slowly than do other people. School emphasizes certain kinds of learning, and rewards certain kinds of intelligence. Children who continue to have difficulty learning from print, or who continue to need to move systematically from the concrete to the abstract, or who need more or different examples or experiences to understand or internalize a concept may need not just a greater variety of teaching and learning modes, but more time to master the same curriculum.

Providing more variety pedagogically and more flexibility in learning time is probably simpler – and it is certainly more cost-effective and more easily justified – than going

through a lengthy process that ends in a label ("slow learner" or "learning disabled") that may be stigmatizing and that is in itself no guarantee of receiving effective help.

While we are aware that by the time they reach 21 years of age, some mentally handicapped young adults will not be able to achieve mastery of the common or specialized curricula, we are not recommending, as some parents have suggested, that free public schooling be extended past that age. *We are genuinely concerned – and we trust that the appropriate branches of government share our concern – that support for these young adults and their families is apparently inadequate: such support as day-centre programs; recreational, occupational, and life-skills programs; and other essentials for community living.* We view this as a social issue, and feel strongly that it must be addressed; but the solution is not in the schools.

Throughout this document we speak of the need for flexibility. Students must have help when they need it, not later. This requires flexibility in both the student's schedule and the curriculum. A student failing a grade often does so because difficulties were allowed to accumulate during the year, and were not addressed immediately, even when a lack of progress had been evident early in the school year.

For many students who can learn at an average pace but have fallen behind, the best approach to a gap in learning is to treat it as a temporary problem that is addressed by fast-paced, "accelerated" instruction, based on the student's understanding that it is possible to catch up with classmates, provided that he or she is willing to work hard with targeted support for a limited time.

The most promising interventions for such students involve work in class, after class, before class, and during the summer, all of which expand the amount of instructional and learning time available. The model, to draw on industrial terminology, is a "just-in-time" strategy. While, through constant monitoring, skilful teachers can identify students who are having difficulty with a new idea or skill, and may be able to modify their teaching to accommodate the student, some students will need the additional temporary "catch-up" work we have described.

Some researchers suggest that no form of extra or compensatory education is as likely to be as successful as in-class instruction provided by classroom teachers who are well trained to teach in heterogeneous classrooms, supported where necessary by para-professionals, lay assistants, and consulting teachers. It is true, nonetheless, that some students will still need on-going, long-term assistance in order to continue to make reasonable progress, although they may never "catch up" to some of their classmates. Among the interventions that are most helpful is cross-age tutoring. A student who lags behind peers tutors a younger child and, in the process of "talking through" a solution to a problem, comes to understand how to ask herself questions as a way of learning new material and of monitoring her own comprehension.

Another useful arrangement is the multi-age classroom. When the range of development is broader, cross-age tutoring can occur within the classroom, and the teacher can do part-time homogeneous grouping for such fundamental skills as reading. As well, if the teacher has the same group of students for two or three years, it is easier to know when children are making regular progress, even if they are not at the same level as some of their peers.

What is usually not helpful either for students who have temporarily fallen behind or for slower learners is to take them away from class, so that instruction in one subject is missed while another subject is being reinforced. Exceptions exist, especially when the withdrawal program is brief, intensive, and focuses on accelerated instruction; but they are truly rare, in terms of both content and effect, and are not typical of withdrawal programs.

Generally speaking, separating children who have difficulty with the curriculum into special or withdrawal classes has not been effective in improving their level of achieve-

Generally speaking, separating children who have difficulty with the curriculum into special or withdrawal classes has not been effective in improving their level of achievement.

ment.[17] Of itself, the segregation tends to be stigmatizing and unproductive, in part because good peer role models are lacking. Most typically, the programs offered in the special classrooms have tended to be ineffective, in part because of a focus on "basic skills" at the cost of higher-level cognitive processing. This runs counter to the fact that these students, like most others, appear to learn more when basic skills are taught within the context of solving real problems, and acquiring real knowledge, rather than in isolation.[18]

Another significant problem of special education classes is that they tend not to increase overall available instructional time for students, many of whom need more time to learn material. Parents often support or initiate the decision to have their children designated as learning disabled because they believe that the special attention and small classes will be highly beneficial. While this may be true in individual instances, or in the case of exceptionally well-designed programs, it is certainly not generally supported by research in this area.[19]

In fact, a review of the most effective ways of helping many students who are now described as disadvantaged, as slow learners, and as learning disabled, yields a list that would be equally appropriate for students with no learning disadvantages at all.

> There is a rapidly growing literature that identifies programmatic structures, curriculum and instructional strategies that produce substantial increases in student performance for low achieving, poor, learning disabled or mildly handicapped ... interestingly, the strategies work successfully for all categories of students. [These are:]
>
> 1. early childhood education for three- and four-year-olds;
> 2. extended day [full-day] kindergarten programs;
> 3. extensive use of pedagogical strategies based on the effective teaching research;
> 4. continuous progress programs in reading and mathematics;
> 5. curriculum programs with the goal of developing students' complex thinking skills;
> 6. co-operative learning across all of the ... curriculum topics;
> 7. peer or volunteer tutoring;
> 8. computer-assisted instruction;
> 9. providing as much of the extra educational [program] in the regular classroom as possible, bolstered by providing a consulting teacher to work with the regular classroom teacher.[20]

A review of research into the effectiveness of special education for students with learning handicaps or deficits shows that a program of separate instruction for these students is not effective.

> The needs of students with handicapping conditions have led some parents and professionals to accept the notion of separate, if quality, education. We will argue that the current system has proven to be inadequate because it is a system that is not integrated, and that we must learn from our mistakes and attempt to create a new type of unitary system, one which incorporates quality education for all students ... While special education programs ... have been successful in bringing unserved students into public education, and have established their right to education, these programs have failed ... to make the separate system significant in terms of student benefits.[21]

We know that some children of normal intelligence who have had effective instruction in reading continue to have difficulty in school for reasons that appear to be primarily cognitive rather than emotional. And we do not doubt that some – though by no means all – have been helped by special-education programs in which a teacher works with students one-on-one or in very small groups. While we are unequivocally sympathetic to such efforts, we must report that we could find no research evidence to suggest that what happens is substantially or systematically different from what any well-trained teacher would do with any student having difficulty comprehending text, conveying information, or expressing opinions through speech or writing. The one plausible advantage of the special-education situation is the individualized or small-group setting.

summary

Through the use of teacher assessment, as well as of the challenge examination, students who can demonstrate knowledge of a subject area should be able to progress to the next level at once – not many months later.

It is very possible that there is a great deal still to be learned about how to help children with learning problems, and that future research will be more fruitful. Meanwhile, the most promising supports for significant numbers of children having learning difficulties appear to be the same as those that help all children: well-prepared teachers, solid early education, and classrooms in which children are supported by their teachers and by each other. In turn, their teachers are supported by good information and resources, including helpful professional colleagues, a knowledgable principal, consulting teachers, and professional networks.

In Chapter 12 we emphasize the need to ensure that teachers' pre-service and continuing education equip them with an understanding of children's cognitive, emotional, and social development; an awareness of the wide range of normal behaviour; skill in identifying genuine learning problems and seeking appropriate assistance; and familiarity with, and skill in the use of, a wide range of teaching methods. These are the essential components of preparation for teaching all students well, including students who might formerly have been seen as needing special and separate education.

Able, advantaged, and fast learners

Some children learn material more quickly than most, either in one subject, in several related areas, or in virtually all of them. At present, such students are given extra or more complex work to do in the regular classroom ("enrichment") or are placed in a part-time or full-time class for "gifted" students. In 1990–91, students officially designated as gifted accounted for more than one in five of all "exceptional students," and 1.75 percent of the entire school-age population.

While many parents spoke to us about their satisfaction with the gifted programs in which their children are enrolled, we think that it makes sense to question whether students who are academically advanced or learn more quickly are best thought of as gifted, or whether that description might be better applied to a very narrow band of students who would be at a substantial disadvantage in any class not tailored to their very special individual talents. This might apply to the person who is very gifted in math, for example, or in music, and whose needs, therefore, cannot be met by any teacher in the school.

We believe that parents and students should seriously consider an alternative for the larger group of quick or advanced learners, one that is rarely used in Ontario: acceleration, which can mean accelerating in a particular subject or in all subject areas. (The latter is often called "skipping a grade.") In a more flexible system, it should be possible for some students to progress more quickly than others. Through the use of teacher assessment, as well as of the challenge examination, students who can demonstrate knowledge of a subject area should be able to progress to the next level at once – not many months later.

But, whereas repeating a grade has been a common practice despite a very poor track record (students who are held back rarely show improved longer-term progress), acceleration, despite its rare use in Ontario, has a very strong and positive record, based on the experience of other jurisdictions. In fact, acceleration has much more pronounced effects on student learning than enrichment.[22] Many parents and educators fear that students who accelerate will be at risk socially: at a disadvantage with their peers because of their relative youth, they will become ill adjusted and unhappy. However, in spite of considerable research on the subject, there is very little evidence that this is the case.[23]

Another concern is that students, however bright, cannot afford to miss content instruction by skipping. As we make clear throughout this report, we are convinced that almost all students could learn more, faster, and better in a system that supports teaching for understanding. We have recommended that there be only three specialization years after Grade 9, and that even after that, learning time can be compressed; or, alternatively, that what is learned in the

same amount of time can be expanded. For fast learners especially, the notion of missing learning because of a lack of time is inappropriate. As long as we are clear about what students need to know, the acquisition of knowledge can be monitored so that no real gaps go unaddressed. Time is not the problem, especially for the quick.

While we are not suggesting that enrichment and special gifted programs cease to exist, we question the idea that this is the best strategy for quick learners, and reiterate that acceleration is a highly effective, greatly under-used, and extremely cost-effective alternative for students who are fast learners.

Recommendation 34

**Therefore, we recommend that in addition to gifted programs, acceleration, based on teacher assessment, challenge exams, and/or other appropriate measures, become widely available as an important option for students.*

Socio-emotional or behavioural disabilities

Classroom strategies:

Like learning difficulties, behavioural problems, including excessive anger and aggression, and depression and withdrawal, exist in a continuum, ranging from those that are temporary or environmentally driven and can be addressed by improved teacher education and pedagogy, to severe obstacles that require long-term supportive programming, and may never be fully resolved. Some teachers are more skilled than others at preventing disruptive behaviour, and their superior techniques can and should be taught to all teachers. There is some evidence that when these are part of the repertoire of primary teachers, children who would otherwise be labelled "behavioural" and put in special classes avoid such placements and the attached stigma and high likelihood of academic failure.[24]

Another kind of skill that makes a significant difference to the aggravating or lessening of "behavioural problems" of the aggressive variety is that of conflict resolution, or negotiation. When teachers and peers respond non-confrontationally to a student who is angry, it is often possible to defuse that anger, and avoid an explosion. Situations that might otherwise result in suspension can sometimes be averted, and, with models for acceptable social behaviour, students may begin to alter negative self-expectations and gain self-control.

"OCCBD [The Ontario Council for Children with Behavioural Disorders] believes that one of the most important processes for the prevention of behavioural difficulties involves the systematic teaching of appropriate behaviours to all students in the educational system. At the present time, educators are not responsible for the teaching of appropriate behaviour. They have neither defined desirable skills nor undertaken the teaching of such skills ... social skills training is provided in the form of 'add-on' programs which are totally dependent upon the initiative of individual teachers ... It is time for discipline to be brought into the teaching/learning context such that continuous progress could be expected for all students in the learning of skills related to responsible conduct."

The Ontario Council for Children with Behavioural Disorders

Voices

With emotional as with learning problems, the first, best "solution" for some children is simply a well-trained and well-supported teacher. But, even with the advantage of well-prepared teachers – and class or school-wide conflict-resolution training – there are some students who will need additional short-term support, while others will require support throughout their years in school. This includes both the aggressive children and those students who are depressed. Depressed students, most of whom are female, risk not being identified and helped if they are quiet, do their work, and do not call teachers' attention to themselves.

But it is the hostile or very aggressive children whom teachers typically find most difficult in regular classrooms, because those students are the ones who disrupt the class and cause difficulty for other students. Most of these are males. In some cases, disruptive students may have learning problems – either the material is too difficult and they are discouraged and frustrated, or the material is too easy and

summary

The most promising supports for significant numbers of children having learning difficulties appear to be the same as those that help all children: well-prepared and well-supported teachers, solid early education, and classrooms in which children are strongly supported by their teachers and by each other.

they are bored. Both possibilities should be explored before they are ruled out as causative factors. Whether the problem requires remediation or acceleration, the best solution may be intensive tutoring or more challenge, rather than a focus on non-academic "behavioural" concerns.

If, on the other hand, the problem is not mainly about learning difficulties, but about social and emotional factors, counselling is necessary. Often, counselling is not available at school or outside (at least without a long waiting period). But because the student is too disruptive to remain in class, he is placed in a special-education class called "behavioural," most often staffed by teachers with some special-education training, but without training or experience in counselling or therapy. It is hardly surprising that this "treatment" is not often very effective, and that the behaviour of students who spend years in such classes does not improve while, very frequently, they deteriorate academically.[25]

While educators are aware of the poor prognosis for students placed in behavioural classes, the classes continue because they do not address an individual's problem solely or even primarily: they serve the larger community by removing him as a disruptive influence from a classroom of 20 to 35 students and one teacher.

In the special classroom, with perhaps six students, a teacher and an assistant, the student's behaviour can more readily be contained. Those with significant emotional disabilities who act out or are particularly hostile present a real difficulty for the school, an institution in which children and young people learn in groups, with a fairly low adult-to-youth ratio.

The special-education classroom substantially increases the ratio of adults to students. There are other conceivable alternatives, some possibly better from the viewpoint of the troublesome students, but unlikely to be implemented if they do not meet the need for a reasonable learning and teaching environment for the students and teacher in the regular classroom.

Another, and possibly a better, alternative in many cases, is to increase the number of adults in the regular classroom in order to keep students integrated while giving them enough close supervision and support to enable them, through a mixture of prevention and quick intervention, to minimize their disruptive or anti-social behaviour. Many schools and classrooms have recently become engaged in such programs, which hold out the hope that students, as they continue to be exposed to high expectations, a normal peer group, and a common curriculum, will learn over time to model positive social and learning behaviour. Avoiding the isolation of the special class means escaping stigma and low expectations of self, while being exposed to, and having the opportunity to learn, the curriculum presented to the peer group.

Health interventions:

For those students who need additional, therapeutic support, schools must depend on health resources that are not readily available. If treatment could be delivered at the school site instead of in hospitals and clinics, students could spend more of their day in their normal environment, and parents would feel less intimidated by the idea of treatment. And if professional help were available over longer periods to those who most need it, the possibility of students remaining in a normal learning environment and profiting from it, academically as well as socially, might be vastly increased.

If a teacher, whose job is to help students learn a curriculum, is to be able to do so, children and youth handicapped by emotional problems must be helped by health professionals, some of them intensively and for the long term. Whether depressed or angry, they cannot function effectively as students unless they receive very strong support.

These young people are not typical, and they are not numerous; estimates vary, but it is rare for any school to have more than a small number. But these few are not effec-

While educators are aware of the poor prognosis for students placed in behavioural classes, the classes continue because they do not address an individual's problem solely or even primarily: they serve the larger community by removing him as a disruptive influence from a classroom of 20 to 35 students and one teacher.

tive learners, and no education, however "special," will be effective for people whose basic health needs are unmet.

The connection between the need for treatment for individual students and the provision of a safe and strong learning system for all students must be recognized, and should become the basis for the delivery of mental-health services to children and youth and, where appropriate, their families, as early as possible. Without such support for the few, education for the many suffers.

We reiterate that there are relatively few children and youth who need long-term, intensive professional care. And we remind educators again that not only disruptive and hostile children and youth need help; students who exhibit signs of serious depression are not disruptive at all, but they certainly need significant support from health professionals if they are to realize their potential as learners and as adults.

These children must be a priority for the health system: by dint of their age, they are most responsive to preventive measures and early intervention. And they must not be ignored by the health system on the grounds that they will be looked after by the educational system, when they require the care of health professionals.

The identification, placement, and progress of students with special needs

While different learning rates (slower or faster than average) may seem categorically different from "disabilities," whether learning related, emotional-behavioural, or both, they are organizationally similar: most students who receive special programming – whether in the form of remediation or enrichment through in-class special support, or in a totally segregated setting based on special learning or emotional needs – are first identified in a process that involves assessment and diagnosis, parental consent, and then special designation, whose continuing applicability must be reviewed annually.

The Identification, Placement, Review Committee (IPRC) process is very costly in professional time, typically requiring a significant amount of preparation and involvement by teachers, administrators, and such support personnel as psychologists, psychometrists, and sometimes social workers, speech therapists, and others. This time is invested not only in the actual study of a student's record and apparent difficulties but in the legal formalities as well.

There is reason to question whether this costly identification and placement process serves students well, mostly because the precision of diagnosis ("learning disabled" versus "slow learner," for example) is not supported by equal precision in prescription. In other words, we are far better at labelling learning problems than at resolving them.

It appears that the reasons some students have difficulty mastering the curriculum are not always accurately reflected by the available assessment tools. For example, while most educators and specialists agree that there are genuine learning disabilities (such as letter reversals in reading), these appear to account for far fewer of the school population than may be identified as learning disabled.

Similarly, the "behavioural" designation describes a classroom problem rather than that of an individual. The student's behaviour is problematic for the teacher and for other students, but the identification as "behavioural" does not clarify the student's problem, or suggest any particular intervention. It is a label, not a diagnosis. That why is we question the value of the I (Identification) in the IPRC acronym.

Most evaluative studies suggest that a great deal of special education does not succeed in achieving its goal, which is to enable the student to make significantly greater progress than peers who remain in the regular program such that he can catch up sufficiently to be reintegrated into the class. The medical model of diagnosis and prescription often does not result in the desired "cure." Therefore, the second reason we question the IPRC process is the poor track record of special-education withdrawal programs, which has helped drive the move towards integrating students with learning

summary

Our discussion of the programming needs of children who are exceptional because of physical, cognitive, or emotional handicaps or differences has stressed our support for the integration of such students, whenever possible. At the same time, in some cases there are advantages to students in part-time or full-time placement in other settings. While integration should be the norm, school boards should continue to provide a continuum of services for students whose needs would, in the opinion of parents and educators, be best served in other settings.

and behavioural problems into regular classrooms. With a decline in special placement, and the increased emphasis on program rather than placement, the P in IPRC becomes much less salient.

Perhaps the most important part of the IPRC acronym refers to the R (Review), carried out annually after the identification and placement have occurred. Our concern is that this review may not take place frequently enough, may not be taken seriously enough, and may reflect educators' low expectations of the student, leaving that student in a special program for years, with no demonstrated evidence of improvement. There is little point in special placement that does not result in more progress than would be made in a regular class or program: not only is it unjustifiable, it can be cruel.

In fact, in suggesting a "case manager" approach for students in Grades 1 to 6, and a Cumulative Educational Profile supervised by a teacher from Grade 7 on, we are recommending a system in which there is much more frequent review on an informal basis through regular teacher-student-parent consultation, independent of a special referral process.

The C in IPRC – the Committee process being followed – is sometimes adversarial in tone. Parents are asked to attend the meeting at which the case will be made that their child should be designated as requiring special education, as well as any subsequent review meetings.

If parents are uneasy, or disagree with the diagnosis, they may choose to be accompanied by an advocate, perhaps a lawyer. In other cases, parents feel they have been overwhelmed by a roomful of experts, and have been too intimidated to ask questions or to disagree. As well, although many school boards make efforts to assure that parents are invited to the meeting, and understand it, that does not always happen. In some cases, IPRC decisions are legally appealed by parents. We think that less adversarial, more informal and more responsive interchange between parents and educators might result in better communication and ultimately in better support to the learner.

While we appreciate the need to take decisions to alter students' programs very seriously, especially if that involves removing them from the regular classroom for part or all of the day, and the necessity for truly informed parental consent to such decisions, we are not convinced that the costly legal process involved in the IPRC process is always useful. At the same time, we are very concerned that parents be fully informed about the school's recommendation, and that when they consent to it, they do so on that basis.

Recommendations 35, 36, 37, 38

For this reason, we recommend that:

**when parents and educators agree on the best programming for the student, and there is a written record of a parent's informed agreement, no IPRC process occur;*

**when there is no agreement, and an IPRC meeting must take place, a mediator/facilitator be chosen, on an ad hoc basis, to facilitate discussion and compromise, to alleviate the likelihood of a legal appeal; and that the legislation be rewritten to provide for this pre-appeal mediation;*

**when a student has been formally identified and placed, the annual review be replaced by semi-annual individual assessment that will show whether and how much the student has progressed over a five-month period, and that decisions about continuation of the program will be made based on objective evidence as well on as the judgment of the educators and parents in regard to the student's progress; and*

**school boards look for ways to provide assistance to those who need it, without tying that assistance to a formal identification process.*

Funding for such supports could flow to schools on a per capita basis, based on a formula that estimates the percentage of students in a neighbourhood school who are likely to need extra help. (Schools that serve as centres for special

education or that have other special designations, such as "inner city" or "special needs," could be funded accordingly.)

Our discussion of the programming needs of children who are exceptional because of physical, cognitive, or emotional handicaps or differences has stressed our support for the integration of such students whenever possible. At the same time, we recognize and have acknowledged that in some cases there are advantages to students in part-time or full-time placement in other settings.

Recommendation 39

**Therefore we recommend that while integration should be the norm, school boards continue to provide a continuum of services for students whose needs would, in the opinion of parents and educators, be best served in other settings.*

Supports for learning for all students

Most students can learn what they are expected to learn as long as they have competent and caring teachers with high standards for themselves as professionals and for their students as learners, a well-planned curriculum, adequate learning resources of all kinds, and family and peers who value them.

Indeed, despite frequent media criticism, lack of concrete evidence of student achievement (as the result of scarce school, district, and provincial assessment data), and some recent, general decrease in confidence in public institutions, opinion polls over the years have tended to show a considerable degree of satisfaction with Ontario's schools. (See Chapter 2.)

But one function that came under particularly heavy criticism was that which is supposed to be carried out by guidance teacher/counsellors, both as career educators and as personal/social counsellors. Guidance programs are under more pressure to change than most others. Parents and students rarely complain that the way history or geography is taught has not changed; there is no general expectation on the part of the public that the content or delivery of these subjects would necessarily shift over time.

But the world of work changes over time, and is radically altering personal experience, leading to expectations that schools will alter career education accordingly. However, it is not easy to provide satisfactory service with staff who were trained 20 or more years ago, are not regularly retrained, may have had minimal training in this area to begin with, and who typically do not have recent personal experience or systematic links with workplaces other than schools, or even with the college and university systems.

In personal and social guidance, too, the demands and expectations have grown enormously. Teachers (including guidance teachers), administrators, parents, and health and social-service professionals told us again and again that schools are trying to help more and more children and families cope with more and more problems related to poverty, family breakup and dysfunction, and lack of support. Guidance counsellors – some of whom are teachers whose guidance training consists of as little as one summer course – are on the front line in helping young people cope with school as part of their often-complicated lives.

As well, these teacher/counsellors are frequently burdened inappropriately with clerical tasks – sometimes by principals who appear not to value or want to protect the legitimate guidance role, and the staff who should be dedicated to it. These duties take much of their time away from students, and make it difficult for guidance teachers to deliver important curricula in life skills and decision-making, which most students need. Diverting guidance teachers from the legitimate teaching role also makes it more difficult for them to be successful in their counselling role because they are prevented from having an initial, non-threatening contact with students who may latter seek them out for individual help.

Therefore, it is not surprising that guidance counsellors are often described by students and their parents as being insufficiently trained or accessible, and as not meeting the

success story

Industry-Education Co-operation

The Halton Industry Education Council Career Centre, with support from education, labour, and business, sees more than 4,500 Grade 8 students from the public and separate boards every year for a three-part career-awareness program. At the Centre, students review their interests, skills, and values, and learn how to carry out occupational research, using its extensive resources. Because it is centralized and specialized, the Centre is able to maintain up-to-date information – far beyond the capacity of any single school – about occupations, trends, and educational programs. The Centre provides teachers in the students' school with links to the community, for example, by having businesses and service clubs provide speakers and job-shadowing experiences.

needs of students. All these shortcomings are real, but certainly do not apply to all counsellors at all schools. Many professional associations of guidance teachers and career counsellors told us that there are excellent teachers and counsellors who are eager to be supported by the training, mandate, and resources needed to do an important job well. We trust they will find our recommendations encouraging and helpful.

Career education

For decades, surveys of the Ontario public have shown a discrepancy between the strong importance parents and older students place on career education, planning, and counselling, and the relatively insignificant amount of time guidance and other teachers actually devote to it.[26]

Students say they need help in formulating educational plans and making decisions about courses and options but that guidance counsellors lack information, or are unavailable without a prior appointment, or are unknown to them. We were told that guidance counsellors were often uninformed about college programs, and under-informed or misinformed about university programs. We heard that they spend much more time working with university-bound students than with others, that they know little about the work world, and cannot help students who need work-related information and counselling. We heard, as well, that there is a need for much greater understanding and skill in working with students who are often marginalized by colour or culture.

On the other hand, we also saw impressive evidence of what could be and is being done in innovative programs involving career centres and various kinds of school and community partnerships. "In those schools regarded as most effective by students, counsellors spent a great deal of time with students on career counselling."[27]

Throughout these pages, we have envisioned a system that is cognizant of the importance students and parents place on career education and planning, and acknowledges the necessity to begin very early to build student awareness of the myriad of possible occupations, of the value of education to their future, and of the importance of knowing and developing one's abilities and interests. Such a system would give a central place to career education, and include trained and dedicated career-education personnel in every school.

We have put a strong emphasis on career awareness, appropriately embedded in a community-based learning environment, beginning in the primary grades. (See Chapter 8.) We believe that for this to happen, teachers must have assistance in gaining access to co-ordinating and connecting opportunities for community-based, career-awareness activities with the curriculum, taking students outside the school, and bringing community workers and employers into it. This work depends on someone with time dedicated to it, and with some experience and interest in school-community liaison and community-based education.

Recommendation 40

**We recommend that all elementary school teachers have regular access to a "community career co-ordinator" responsible for co-ordinating the school's community-based career-awareness curriculum, and working with teachers and community members to build and support the program.*

The co-ordinator might be a person who works at a local career centre, a parent, teacher, or community member with appropriate background and/or experience. The number of hours per week needed will vary according to the size of the school and the age of the students.

We have also created a cumulative educational plan (CEP), beginning in Grade 6 or 7, and monitored and regularly reviewed by teacher-advisors in consultation with students and parents, as well as providing co-operative education and career counselling during the specialization years, and during the transition from school to work. (See Chapters 8 and 9.)

In order to support the CEP and the career-education-related curriculum beginning in Grade 7, we believe that students and their teacher-advisors must have access to a career-education specialist who knows about education, training, and work opportunities, about secondary and post-secondary educational programs, and who is able to provide students with assessment and counselling as well as job and career information. We want schools, beginning no later than Grade 7, to have career-education personnel who are professionally trained to organize, co-ordinate, and deliver educational and career information, planning, and counselling, with differing emphases according to the age and needs of the student.

The career-education specialist's job would include direct contact with students individually and in groups, with parents, and as a consultant helping teachers and teacher-advisors to become aware of the range of education, training, and work options available to students after high school.

In addition to advising, counselling, and consulting, the job would include periodic monitoring of students' CEPs. The career-education specialist would continue to assist students, not only those who stay in secondary school, but those who leave before they are 18 years old, advising them, referring them to other sources of help, and helping those who wish to re-enter school to do so. Currently, career education is primarily the job of guidance counsellors who may have little specific training in the area, and who typically do not or cannot give it the time and attention it needs. We are convinced that in future, this service must be delivered by people trained for it, and dedicated to it.

Teacher training is not the essential component; training as a career educator/counsellor is. To the extent that the function will continue to be carried out by existing staff for some time, they must be retrained; people entering the field must also be trained, whether or not they are teachers; the result may be a mixture of teachers and non-teachers doing this work.

Recommendation 41

**We recommend that beginning in Grade 6 or 7 and continuing through Grade 12, all schools have appropriately trained and certified career-education specialists to carry out career counselling functions.*

success story

Community-Based Career Education

In a recent project operated from the Toronto Centre for Career Action, which is sponsored by the City of Toronto and the Toronto Board of Education, Grade 8 and 9 students from three schools were linked with businesses and institutions in their communities.

Community partners, including a major bank, city government services, a candy factory, the zoo, local business, and the Board of Education were involved in providing a workplace experience for students. In-class preparation was an important feature of the project: classes explored students' interests and career values, and introduced the language, terminology, and practices they would observe during their workplace visits. They prepared for those visits by brainstorming in a search for questions to ask their workplace hosts.

Employer partners were offered assistance in preparing to meet the students: packages of suggestions for activities, general profiles of the student group, and tips for creating a dynamic, hands-on experience were made available. Teachers worked with the project co-ordinator, who was able to coach and support them and the community partners and provide the critically important link with the business community.

Evaluation of this pilot program revealed that compared with students in the same schools and grades not involved in these activities, students who participated were more likely to maintain or develop a positive attitude to school over the year, less likely to consider the possibility of dropping out of school, and were more likely to develop more differentiated and realistic ideas about post-secondary education.

observation

A system that recognizes the importance students and parents place on career education and planning will give a central place to career education, and include trained and dedicated career educators in every school.

The career-education specialist would continue to advise and refer students who leave school before they are 18 years old, and would help them re-enter school if they wished to do so.

We suggest that the role and function of the career-education specialist be clarified by:

- defining the skills and training required to provide these services, including skills in communicating with a diverse population;
- creating and implementing a plan for educating and re-educating people who are now, or should now be, delivering these services to students; and
- ensuring that career-education services are delivered by those who, afer a date to be specified, have the agreed-on training.

The redefinition of the career-education role and function should be done in co-operation with other ministries, such as Industry and Trade, Citizenship, and the Ontario Women's Directorate, as well as with the Ontario School Counsellors' Association, the Association of Career Centres in Educational Settings, and with representatives of colleges and universities, and the training should be accessible from several routes, not only teacher education.

> Any person can call him/her self a career counsellor with absolutely no qualifications. There is a need for a comprehensive training initiative that is developed with extensive field consultation to ensure that the training is relevant and accessible to practising career counsellors.[28]

> The Government of Ontario should work with relevant stakeholder groups to establish career/vocational counselling as a recognized field of professional research and practice in Ontario, comparable to its status in other jurisdictions.[29]

Career information constantly changes and grows. No career educator, however well prepared, can function well without having an excellent and current information base. Responsibility for developing and updating such a base must be centralized and be equally accessible to all schools and all learners.

We suggest that the Ministry support the development, or updating and implementing, of a provincial, career-information system accessible to staff and students. Responsibility for developing and updating such a database must be centralized, and the information must be equally accessible to all schools and all learners, to teachers, career-education specialists, students (including those with disabilities), and adult learners. We suggest that as one way of establishing a provincial system, the Ministry investigate the role of information technology, in connecting sources and networks of career information and counselling, and explore the feasibility of increasing resource availability through electronic means.

Another type of invaluable information for schools is the careful description of exemplary programs and the conditions necessary for their implementation and maintenance. The Ministry of Education and Training has recently undertaken initiatives, such as the Education-Work Connection (EWC), that expand and improve the information base and the educational opportunities available to learners and to career-education personnel in schools. This kind of project, which builds capacity at the local level by building information and expertise centrally, is extremely helpful.

In order to meet students' needs for career and educational planning and counselling, there must be a clear statement about what students have to know about post-secondary opportunities, best expressed as learner outcomes for career awareness and education. Some of these statements are embedded in *The Common Curriculum;* others, especially for Grades 10 to 12, do not exist.

"[We need] an overall provincial strategy which outlines the expectations for Career Education; [and] a structure in every Board of Education to support the development and implementation of a career-education program for all learners."

Association of Career Centres in Educational Settings

voices

Recommendation 42

**We recommend that the Ministry, in co-operation with professional career-education groups, the Ontario School Counsellors' Association, and the Association of Career Centres in Educational Settings, and with representation from colleges, universities, and business and labour, develop a continuum of appropriate learner outcomes in career awareness and career education for Grades 1 to 12.*

These outcomes should place a continuing emphasis on linking the school's curriculum to the community and its work settings, and should be understood to include community service.

Because career education has traditionally been delivered by teachers with training in guidance, and because we are recommending that the career-educator function in schools be expanded (to begin no later than Grade 7) and differentiated from the teaching function, it is necessary that the Ministry of Education and Training, in collaboration with professional career counselling and school guidance groups, and with business, labour, and colleges, examine and clarify the role of guidance counsellors in career education, and develop models of effective and exemplary staffing, training, strategies, and practices.

Finally, while we are confident that greater clarity about learner outcomes in career education, and a strong push for more intensive and appropriate training for those who provide it, are the keys to better career education and counselling for students, we are aware that well-planned programs and well-trained staff are genuinely effective only when they are supported by an environment – in this case a school and a school board – that recognizes the importance of career education, and facilitates the job of career educators.

It is our hope that all schools and school administrators will find in these pages the voices of the parents and students who spoke to us, and take seriously the responsibility for supporting dedicated staff who can carry out their duties in career education and guidance.

Social and personal guidance teaching and counselling

We also heard concerns about the personal and social (as opposed to the educational and career-planning) function of guidance. Guidance teacher/counsellors are often seen as remote and too unfamiliar for students to approach; in fact, research supports the finding that students are more likely to go to subject teachers for help that would be more appropriately provided by trained counsellors, in part because the guidance teacher is simply not well known and accessible to them.

At some point in their school careers, many, if not most, students will be concerned about an issue that may or may not be educational in nature, but that could interfere with their ability to concentrate on their work. They would welcome the opportunity to discuss these concerns in confidence with an adult other than a parent, another relative, or a friend of the family.

Because most children and young people know only one other class of adults – teachers – they may turn to one of them for personal help or advice. Some students, when asked, acknowledge that they would like to be able to speak to a counselling adult at their school, but have not done so for a variety of reasons.

Teachers, especially when they are acting in an advisory capacity, should be prepared to listen to students in a friendly, non-judgmental and confidential way, to offer support and advice as appropriate. As well, they must be able to recognize when a student needs more help than they can appropriately offer, and to help that person gain access to a counsellor or health professional. In elementary schools, there is often no guidance counsellor, and referral is usually through a school team to a health professional.

In addition to personal counselling, guidance may involve individual students or groups of students organized around interests and issues such as decision-making, leadership, or

summary

Counselling in many schools tends to be individual and reactive; neither is efficient, and both severely limit counsellors' efficacy for the student population as a whole.

It is not essential that counsellors be certificated teachers, or that teachers be trained as counsellors.

What is essential is that people with appropriate training and expertise for preventive and short-term counselling are available and are well known to all students, so that it is not difficult or stressful for students to gain access to them when they wish to make individual contact.

social support; or problems, including substance abuse or family violence. In addition, guidance counsellors, who are certificated teachers, have a role inside the classroom and the school, as teachers of life skills and related curricula. Besides delivering a specific curriculum, such as life skills, guidance teachers may organize, supervise, and support such school-wide programs as peer tutors, peacemakers, or the student council.

Counselling

There are apparently several problems that prevent many guidance teacher/counsellors from carrying out their responsibilities successfully. First, a variety of roles, but especially those of teacher and counsellor, have traditionally been subsumed under one title. It is possible that separation and specialization between them would serve schools and students better, and that more differentiated staffing would result in higher-quality and more user-friendly guidance teaching and counselling.

Related to this is the clear fact that for a variety of reasons, guidance staff are not always properly prepared for their work and not always appropriately assigned. For example, part-time counsellors are often teachers of other subjects, with very little training in counselling.

Moreover, because counsellors do not have full-time classroom assignments and are therefore "available," administrators often make demands on their time for work more efficiently done by others: prime examples are clerical duties involving registration, record-keeping, and the like. Finally, too many counsellors see their offices as the appropriate place for working, and they stay there, waiting for students to find them, and serving only the minority that does so, rather than allocating their time in a planned way to groups of students who could benefit from their service. Counselling in many schools tends to be individual and reactive; neither is efficient, and both severely limit counsellors' efficacy for the student population as a whole.

The essence of the personal counselling function in schools is to connect with students and help them cope in school so that they can be academically successful in spite of difficulties or distractions of various degrees of seriousness, many of which are commonplaces of daily life, especially for adolescents.

The appropriate strategy for meeting much of this need is prevention: offering group counselling and group learning/life skills programs in such areas as decision-making, study skills, stress management, and so on. As well, intervention programs for groups of students with definable short-term needs – such as students at risk of failing, or of being suspended because of poor attendance or inappropriate behaviour – can be assisted by a combination of group and peer counselling, with guidance counsellors providing the orientation, training, and monitoring of the peer tutors.

It is not essential that counsellors be certificated teachers, or that teachers be trained as counsellors. What is essential is that people with appropriate training and expertise for preventive and short-term counselling are available and are well known to all students, so that it is not difficult or stressful for students to gain access to them when they wish to make individual contact.

There are ways counsellors can make themselves known and accessible to most students. These include offering a combination of such programs as student council advisor; facilitator of training in study skills, in peer tutoring, and in conflict mediation; and advisor-facilitator of group programs for women students, recent immigrants, teen parents, and others.

If counsellors do not take an active role in the life of the school, their time and services are absorbed by a small minority of students, and they are perceived as not useful.

> It is clear that the majority of students do not see the guidance office as a place to go for help with their personal problems. If guidance counsellors feel this latter service is an important responsibility, they have a great deal to do to make themselves appear not only accessible, but as people who can meet this need.[30]

"Students have no relationship with their guidance counsellors – a comfort level is never really established with these people in secondary school."

Ontario Secondary School Students' Association

voices

When, on the other hand, they make themselves well known and accessible, through classroom contacts and programs delivered to the entire school, they make a positive difference.

When students need long-term or intensive help, a teacher, counsellor, or team of teachers and administrators who review teacher referrals must refer these students to a health professional, such as a physician, a psychologist, a social worker, or another therapist. Whether these health professionals are directly employed by the school or school board, or by hospitals, clinics, or community agencies, or are self-employed, their availability as a back-up system is essential.

Schools are not staffed with a high enough ratio of counsellors to students to allow them to give more than brief counselling on an individual basis, and extended mental-health intervention is not what they are or should be doing. When students have problems and concerns that are not readily dealt with, they must have access to qualified health professionals at school or nearby, people who can give them appropriate time and attention, whether individually or in small groups. This is one of several examples of the need for links between the health system and local schools in a way that makes help available to young people where and when they need it.

Teaching

Guidance curricula of the kind we described earlier as group learning and life skills, can be delivered by guidance teachers who spend a set number of hours in classrooms. In cases where there is no guidance counsellor (typically before Grade 9), the existing "guidance" curriculum (decision-making and interpersonal skills) has been delivered by a classroom teacher or by an administrator who may have some guidance training.

It is common for elementary schools to lack guidance teachers/counsellors. This report emphasizes, from beginning to end, that in addition to providing a well-planned, challenging learning program, schools must look to people outside to offer children other kinds of learning experiences – many of which are in what we think of as the life skills areas.

Rather than expecting a busy school principal or a classroom teacher, already responsible for teaching a myriad of academic subjects, to present a curriculum on the prevention of sexually transmitted diseases, or to help students learn how to operate a students' council, schools must be able to draw on community personnel outside their walls for the skill and expertise that are certainly present in a variety of publicly supported agencies with mandates that certainly include the children and families served by the school.

In the curriculum from Grade 10 on, we have suggested that life skills instruction, in areas like parenting education, for example, have an important place. Currently, guidance teachers may be delivering such programs, as may family studies teachers. Whether teachers or non-teachers are involved, students need access to this information, as well as to opportunities to discuss their concerns and questions about health- and lifestyle-related choices.

We suggest that there are a variety of possible deliverers of a group learning/life skills curriculum, and of training in such skills as peer tutoring and other kinds of leadership and service to students of any age or grade level. This includes subject teachers, who may integrate a study skills or a small-group learning focus into their program; as well, it may include administrators, guidance teachers, or non-teachers, such as public health workers, community workers, and others.

Thus, teachers with guidance training are one of several possible resources for delivering this curriculum. The appropriate training for delivering group learning, life skills, and interpersonal and intrapersonal development could be the core of a revised program for guidance teachers, in which the teaching role is emphasized.

summary

The appropriate training for delivering group learning, life skills, and interpersonal and intrapersonal development could be the core of a revised program for guidance teachers, in which the teaching role is emphasized.

Recommendations 43, 44, 45

We recommend that in order to meet the needs of students for guidance and personal counselling:

**first, the Ministry of Education and Training take the lead in working with the Ministry of Health to develop a definition of essential mental-health promotion programs and services that should be available in the school setting; the professional training necessary to provide them; the services that should be offered to students outside the schools and by whom; and the way responsibility for providing these services is shared across ministries.*

**second, the Ministry of Education and Training clarify the nature and function of personal and social guidance counselling in schools by:*

a) redefining the appropriate training required for a guidance or personal counsellor, and creating and implementing a plan for educating and re-educating those people who are now, or should now be, delivering these services to students; this redefinition should be done in co-operation with the Ontario School Counsellors' Association and representatives of colleges and universities; such training should also be accessible through avenues other than teacher education;

b) ensuring that delivery of these services be implemented by personnel who, after a date to be specified, have received the agreed-on training.

**third, the Ministry of Education and Training develop a new guideline for social/personal guidance to replace* Guidance, Intermediate and Senior Divisions, 1984 *including a description of the kind of differentiated staffing needed to deliver guidance and counselling services in schools, both elementary and secondary.*

In the case of students with serious mental-health needs, we strongly support the principle that the institution that has primary responsibility for the child or youth should take the lead in defining the supports needed, and other institutions should co-operate to meet the defined need. (For further discussion of this principle, see Chapter 14.)

While we believe that it is important for policy makers to consider career education, personal and social education, and counselling as functionally distinct – and to ensure that preparation for, and execution of, each of, these roles in schools is well supported – we are aware of several schools in which career education, life skills, and group and individual guidance and counselling are integrated. These programs are of high quality, are accessible, and are well respected by students, teachers, and parents.

We are encouraged by such exemplary initiatives because they can serve as excellent models for the development of new guidelines for training and program delivery.

Endnotes

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2 In the text, we have referred consistently to "immigrant students." While it is true that there may be a very small number of students born in Canada but living in a home in which English is not spoken and who might benefit from ESL support, we want to emphasize the very small number who should be in segregated or withdrawal ESL classes. This is not, however, the case in French-language schools, where the need for ALF is as relevant for Canadian-born students as for students born outside Canada.

3 M. Danesi, *Studies in Heritage Language Learning and Teaching* (Toronto: Centro Canadese Scuola e Culturale Italiana, 1988), p. 45–51.

4 Cummins, "Bilingualism and Second Language Learning," an appendix to "The Role of Language Maintenance." The appendix may also be found in the *Annual Review of Applied Linguistics* 13 (1993): 51–70.

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8 Maisy Cheng and A. Soudack, *Anti-Racist Education: A Literature Review*, report 206 (Toronto Board of Education Research Services, 1994), p. 47–49.

9 A.R. Odden, "Thinking about Program Quality," in *Education Policy Implementation* (Albany: State University of New York Press, 1991), p. 125–42.

10 Ontario, Heritage Language Advisory Work Group, "Report of the Heritage Language Advisory Work Group to the Honourable David Cooke, Minister of Education and Training" (Toronto, 1993), p. 6.

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17 Odden, "Thinking about Program Quality."

18 P. Peterson, "Alternatives to Student Retention: New Images of the Learner, the Teacher, and Classroom-Learning," in *Flunking Grades: Research and Policies on Retention*, ed. L.A. Shepard and M.L. Smith (Philadelphia: The Falmer Press, 1989), p. 174–201.

19 Odden, "Thinking about Program Quality," p. 125–42.

20 Odden, "Thinking about Program Quality," p. 135–38.

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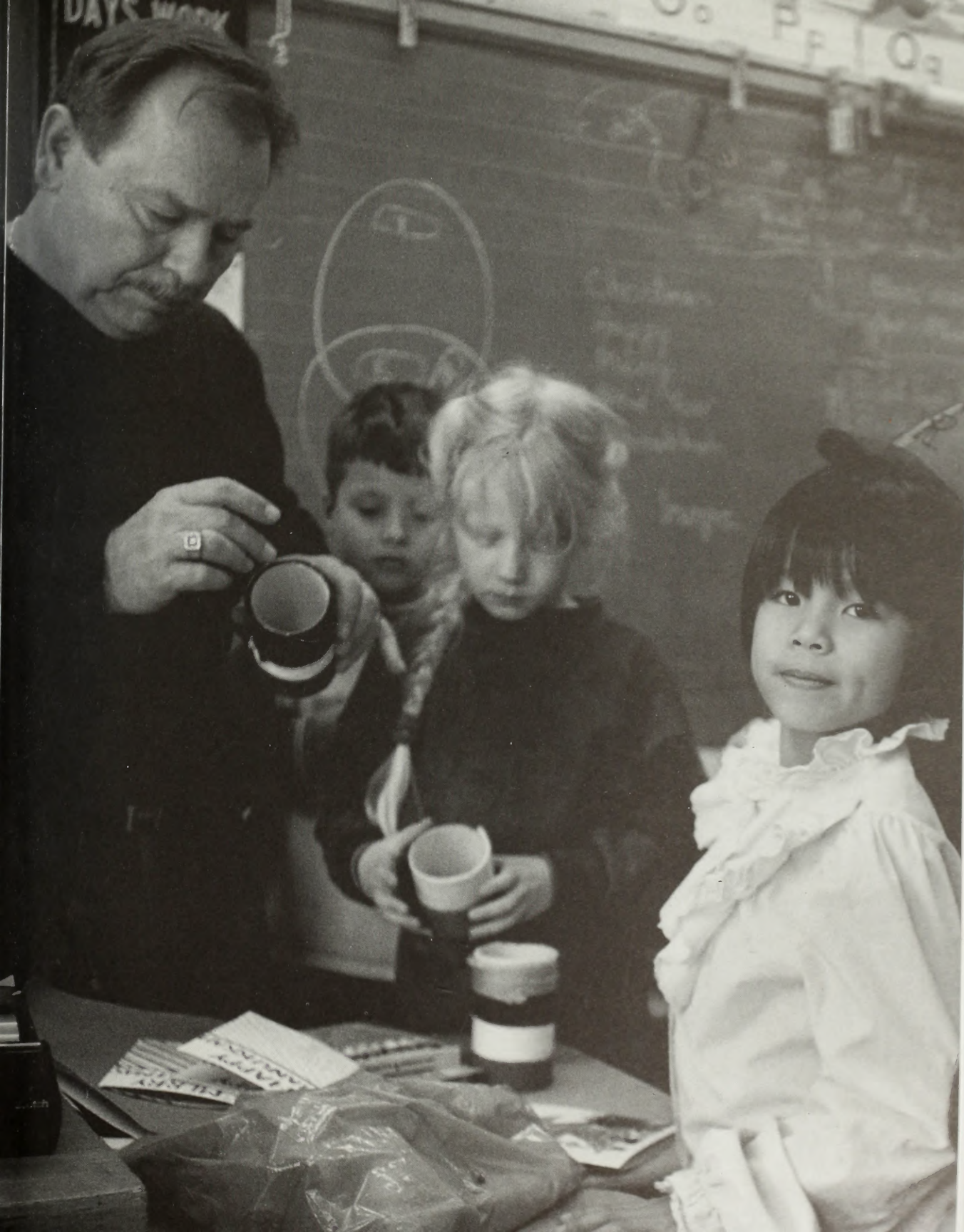

11 Evaluating Achievement

It would seem self-evident that, no matter how carefully designed the curriculum, or how thoroughly prepared the teachers, we cannot know how well students are learning without measuring and describing – assessing and evaluating – their level of achievement and their progress. However, until recently, such information has been scanty and unclear in Ontario.

> Assessment, especially when it is used for decision-making purposes, exerts powerful influences on curriculum and instruction ... If assessment exerts these influences it should be carefully shaped to send signals that are consistent with the kinds of learning desired and the approaches to curriculum and instruction that will support such learning.[1]

While recognizing that, as public institutions, schools are obliged to report to the public on how well they have fulfilled their mandate, educators point to many obstacles to doing so – about assessing and evaluating effectively, efficiently, and constructively. Professionals who specialize in the complex and technical area of assessment of student achievement acknowledge that it is easier to carry out poorly than well, easier to mislead than to inform with statistics, and easier to spend a great deal of money in assessing what students know than to improve teaching or learning effectively. (We are referring here to professional educators, not to those who have tried – and, in many places, succeeded – in creating profitable businesses built on mass testing that is saleable rather than genuinely useful.)

As the discussion of curriculum emphasized, learning does not proceed in neat steps, each one exactly equal, nor in an unvarying sequence; therefore, tests cannot be applied to students as simply as quality control can be applied to objects coming off a conveyor belt. Tests will not fix students' problems or improve teaching; they will not guarantee that students will find successful jobs or careers. At best, they can tell parents something (but never everything) about what their children know, and give teachers useful information about what material they have taught successfully, and what they need to approach differently.

We know that the schools, the boards, and the province have an obligation to ensure that student learning is assessed fairly and clearly, and that it is reported in a readily understandable way. At the same time, we caution that, no matter how simple it may appear to be to undertake, assessment is complex and costly. It must be done, and done well, but without losing sight of the fact that assessment is a means to an end, not an end in itself. Not only must it enable us to describe what students know and what they have been taught, it must show where improvement is possible and desirable. And, although there is abundant evidence that assessment can cause educators, however unwittingly, to narrow the curriculum and limit students' and teachers' horizons, it must not do so. In Ontario, we need more and better information on what students are learning; we do not need a large-scale testing industry or an educational system that is driven – and limited – by the need to teach only what is easily measured, or to measure only what is easily taught.

This chapter considers issues inherent in monitoring and reporting student achievement, and in ensuring quality and consistency in evaluating students' work. We describe good assessment practices, and identify ways in which those responsible for education in Ontario can be more accountable to the public; as well, we chart directions that will lead to the continuous improvement that is characteristic of a healthy learning organization. System accountability, as differentiated from student assessment, is discussed in Chapter 19.

summary

Assessment is a means to an end, not an end in itself. Not only must it enable us to describe what students know and what they have been taught, it must show where improvement is possible and desirable.

Parents want information: to be told, fully, honestly, in a language they can understand, and in a timely way, how well their children are progressing in school, and what teachers will do if students are not making satisfactory progress.

Students want teachers to tell them clearly and promptly what they need to do in order to improve; and they are concerned about common standards for assessment.

Student assessment: What people told us

We heard a great deal of concern, mostly from parents and students, but from others as well, about measuring a student's learning.

Parents want information: to be told, fully, honestly, in a language they can understand, and in a timely way, how well their children are progressing in school, and what teachers will do if students are not making satisfactory progress. Parents want standards in order to know how well their children are doing, compared to others of their age, or according to some accepted and consistent criterion of what children their age should know.

The word "standard" is confusing, because it has a general and a specific meaning, and both are used in conversations about learning and assessment. The general meaning is the one implied in a remark such as, "We need high standards." In this general sense, standards is often synonymous with goal or expectation, and refers to an ideal; it connotes a passion for excellence and habitual attention to quality.

"Standards are objective, exemplary ideals that serve as worthy and tangible goals for everyone, even if some cannot (yet) reach them."[2]

In its more specific meaning, often used by the parents we heard from, standards are a reference point against which performance is measured. Educators compare a student's achievements to a number of different reference points. Performance is compared to that of other students in the same class, the school system, or the province (norm-referenced); or it is compared to some pre-determined, expected level of performance (criterion or outcomes-referenced). Standard in this sense is similar to yardstick, and refers to a typical, rather than to an ideal, state. Both norm-referenced and criterion-referenced assessments allow us to describe the individual student as performing below, at, or above the standard, whether the standard is other students' performances, or mastery of content. When people call for "standardized testing," they can mean either a norm-referenced test or a criterion-referenced test, although those outside the system tend to be most familiar with the norm-referenced variety.* Examples include the Canadian Test of Basic Skills and the Gates-McGinnity Reading Test. The old Grade 13 departmental exams were examples of criterion-referenced standardized tests.

Students, post-secondary educators, employers, and the general public – like parents – are concerned about standards, each group from a particular vantage point and interest.

Students told us they are concerned about information: they want teachers to tell them clearly and promptly what they need to do in order to improve; they want fairness: they believe (as do many adults) that some teachers and some schools mark "harder" than others, putting students at a disadvantage when making application to college or university. (Or, conversely, marking too easily, and putting students at a disadvantage because they are ill-prepared for the next grade, or for college or university.) Thus they, too, are concerned about common standards for assessment.

Representatives of various sectors of the public – post-secondary institutions, the business community, some professional groups – expressed concern about the lack of information about what students know and the existing

*The popularity of norm-referenced tests is due to their seeming simplicity of interpretation – but it is a very deceptive simplicity. Every decade or so, a norm-referenced test is "re-normed" – that is, it is extensively field-tested to see how students actually score. If students are scoring higher than the students of 10 or 20 years ago, then the "norm" or average score is adjusted higher, in order that the proportion of students scoring at, above, and below the average will remain constant, and the famous "bell-shaped curve" will continue to sort students along the same continuum. This is exactly what has happened over the last 50 years: students, on average, have scored higher on many standardized, norm-referenced tests, with the result that norms have been raised. Thus, it is easy – but wrong – to assume that standards have not risen, because scores remain the same. This applies not only to achievement tests, but also to the most deceptively stable of all tests, the intelligence test. Thus, while the "average" I.Q. is always, by definition, 100, the ten-year-old who scores 100 today has had to exhibit more knowledge than the ten-year-old who achieved that score in 1930.

"We want to declare our commitment to excellence, and the need to set high standards for Ontario students."

Federation of Women Teachers of Ontario

"Standards should be set by input from parents, teachers, students, and school boards."

Student Council Prime Ministers,
London and Middlesex County Roman Catholic Schools

voices

"Each school has different standards. It's no secret in this town that some schools mark easier than others. Senior students transfer in order to raise their OAC averages."

R. Bergeron, a Kingston parent

information that indicates to them that students are not learning well enough. They were often among those calling for an increase in standardized testing, as a way of obtaining more information, and demanding higher expectations (standards) in learning and teaching.

While many parents and community members recommended some kind of standardized testing program as a vehicle for increased consistency and clarity about actual student achievement, some parent groups were concerned about the effects of standardized testing. They noted it might have a particularly harmful impact on minority, low-income, and special-needs students, whose real achievement level might not be reflected because of language differences or difficulties with the test's form, rather than its content; some teacher groups expressed fears that the results of such tests might be misinterpreted.

The recent history of student assessment in Ontario

> In recent years, there has been an increasing emphasis on assessment, as well as an increasing concern about the nature of the most widely used forms of student assessment and uses that are made of the results.[3]

The fact that many people are asking, with some impatience and a sense of urgency, for more information about student achievement across Ontario, reflects the lack of such data over the last several decades, compared to earlier times and other jurisdictions, and the current *crise de confiance* about education, an anxiety which is certainly fed by lack of concrete information.

Ontario has had very little tradition of standardized testing. Throughout the '50s and '60s, standardized exit exams in Grade 13 (departmental exams) were given in all subject areas, and formed the sole basis for entry to university. In the mid-1960s that changed: results from the exams were coupled with teacher's marks. In the late '60s, the exams were discontinued and teachers' marks became the only basis for university entrance. That change was made in part because it was learned that teachers' marks predicted university achievement as well as the exams. This should not be a surprise: one would expect that a teacher who has known a student for a year, and judged his or her performance on a variety of formal and informal criteria, would be a better predictor of potential success than any single test. Traditional tests, of the Grade 13 variety, tended to reflect ability to memorize and regurgitate, and to bear up under stress – useful abilities, certainly, but not the kind of serious thinking and knowledge acquisition our schools should foster, and not the kind of shallow goals that should shape the curriculum.

Teachers have had considerable autonomy in designing their own assessments, and in making judgments about the quality of a student's work. Teachers' marks have been viewed as an acceptable and adequate method of deciding whether students should be promoted, where they should be placed, and what programs they should undertake.[4]

In the 1970s and early '80s, when other provinces and many American states were expanding their assessment programs, Ontario was leaving assessment in the hands of educators. A program called the Ontario Assessment Instrument Pool (OAIP), for example, created banks of test and assessment items from which teachers of various subjects at different grade levels could choose. The OAIP had potential for bringing greater consistency to student assessment, but

"An analysis of student achievement both provincially and internationally is an essential indicator of the direction needed to ensure that our students are desirable candidates in the global economy."

Hamilton Council of Home and School Associations

voices

its implementation was left largely to chance and individual initiative, and its potential was never realized.

This policy of leaving assessment to the discretion of individual teachers was clearly stated in the OSIS policy document (1984) for Grades 7–12/OAC:

> For the most part, it is recognized that the most effective form of evaluation is the application of the teacher's professional judgment to a wide range of information gathered through observation and assessment. In order to help teachers evaluate student achievement, curriculum guidelines will describe appropriate evaluation techniques.

Thus, evaluation techniques were described, but standards against which to evaluate were not specified.

The first of Ontario's recent large-scale assessments directed at evaluating the school system's performance were in science and mathematics. During the 1980s, the province participated in several of them. The results were reported by the media as generally indicating that Ontario students scored mid-way, with about half the other jurisdictions (which usually included a few other provinces as well as many other countries) scoring higher, and half lower. While this "middle-of-the-pack" score was an accurate reflection of Ontario's performance for some tests, it was not for others. In fact, this kind of reporting ignored the size and meaning of differences; in some cases, these were so small as to be insignificant and unreliable. What looked like higher or lower scores in a ranking table were often actually ties, because the spread in points was minuscule. For example, in the Second International Mathematics Study, while Ontario was reported as being in the middle of the table in most areas, in fact only Japan scored higher in algebra; Ontario and British Columbia were tied with two other countries; and the rest had lower scores. The same was true in geometry: Japan at the top; Ontario, British Columbia, and five others tied below it, and the rest below them. But in typical "league-table" reporting, the results seemed far worse.

Having said that, however, it is true that the performance of Ontario's students on the math and science tests overall indicated adequate but not outstanding performance; they tended to be stronger on the basic skills components than on higher-level problem-solving.

We think that the more impressive distinction between Ontario and some higher-scoring jurisdictions (these differed from one test to another and, in addition to Japan, included Hungary, Korea, Taiwan, Alberta, British Columbia, and Quebec) is not how well our students learned, but how much they were taught. The results of comparing what is asked on a test to what the curriculum in a particular jurisdiction is supposed to cover are calculated as the "opportunity to learn" (OTL). What is found, when this comparison is made, is that students in Ontario are simply being taught less – fewer concepts and topics – in mathematics and science than students in some other countries and provinces. Thus, the problem is not achievement – our students show similar mastery of what they have been taught. It is a problem of input, not outcome. While it is possible that our students might be taught some things which were not included on the tests, it is clear that they are not being taught many things which students in other countries are given the opportunity to learn.

> In many ways, the OTL data are more compelling than the achievement results ... the cause of [different OTL results] is that some countries teach a lot more mathematics or science than others ... it does raise the issue of whether we ought to be teaching more mathematics and science ... a topic agreed upon for inclusion [in an international test] is not necessarily more important than material not included. However, when one country gives high OTL to twice as many items as another country, it certainly must raise the question of whether that second country is teaching enough ... the question of whether we want to teach more material is settled by examination of subject matter content and societal needs, and not the achievement results. The comparative OTL data point to the problem, and curricular analysis answers it.[5]

"All students from Grades 1 to 9 should take a test of basic skills every year, with parents and students receiving the individual results, while school and provincial results are made public."

Organization for Quality Education

voices

(In 1995, the Third International Mathematics and Science Study will involve Ontario students in Grades 3, 4, 7, and 8, as well as secondary school students, and will include mathematics, science, and physics.)

Recently, the Council of Ministers of Education of Canada (CMEC) embarked on national assessments in its School Achievement Indicators Program (SAIP), which samples students in each of the participating provinces. The first test, in 1993, was in mathematics and included a sample of 13- and 16-year-old anglophone and francophone students from across Ontario. Results indicated that the two groups were similar to the national average in their knowledge of content (number and operations, algebra, measurement, geometry, statistics, etc.) and problem-solving; like other Canadian students, and as international tests have also shown, their problem-solving skills lagged behind their knowledge of content; and relatively few students were working at the highest levels of achievement. There was considerable inter-provincial variation, with students from Quebec (both francophone and anglophone) tending to score higher than those from other provinces. (Future SAIP testing is scheduled to include reading and writing in 1994 and 1998, science in 1996 and 1999, and mathematics in 1997 and 2000.)

In addition, the Ministry has undertaken provincial reviews of senior geography (1987), senior chemistry and physics (1988), mathematics and reading in Grade 6 (1989), mathematics in Grade 8, 10 (general) and 12 (advanced) (1990), and writing in Grade 12 (1992). These are assessments of curriculum effectiveness based on testing a representative sample of students, plus data based on interviews and observations. (In some cases, school boards extended testing to all students.) Although the provincial reviews were not based on explicit learner outcomes, they have been a good source of information about how well students are learning. The Grade 12 writing review, for example, demonstrated that, while the majority of students were able to write at a "satisfactory" level, very few reached the "superior" category.

All these international, national, and provincial studies have used student samples, which is a much more economical way to assess general student achievement, although it obviously does not permit reporting on the individual student or school. For example, we are advised by the Ministry of Education and Training that the cost of a provincial review is about one quarter the cost of a test given to every student in Ontario. Thus, the Grade 12 reading/writing review cost about $750,000, while the Grade 9 reading/writing test cost about $3,000,000.

The results of these studies have contributed to public discussion and concern about education in Ontario, and led to increased interest in routine student assessment. In 1993, the government responded by modifying a planned Grade 9 reading/writing review (which would have used a random sample of Grade 9 students across the province) to become a test taken by all 140,000 Grade 9 students in Ontario. (A second Grade 9 reading/writing test is planned for 1994/95, and it, too, will be given to all students.) The 1993 review was based on a two-week curriculum on the theme of food (anglophone) and media literacy (francophone) and included an extensive written portion; test scores counted for 20 percent of a student's final mark. The majority of students performed at or above the level deemed "adequate." Some of the media, however, questioned the validity of the terms "adequate," "competent," and "proficient," based on examples of students' writing graded in those terms. Clearly, there is no pre-determined standard for what constitutes a given level of writing or problem-solving.

Chapters 7, 8, and 9 referred to the development of learner outcomes against which progress can be measured; these have been defined for Grades 1 to 9, and we have recommended that they be expanded to the other grades and levels, and that they be improved. As well, we made reference to the standards being developed in language and mathematics, and we recommended that they be established in

summary

Lack of information creates uncertainty and anxiety; this is certainly true in the case of the lack of student assessment data in recent decades in Ontario.

Once we have a useful set of outcomes that describe what students should know and be able to do, for example, in mathematics by the end of Grade 3, we can assess their performance and compare it to the standards that have been established.

Frequent and cumulative assessment has the potential to increase and enhance learning.

other foundation areas. These standards could and should play a key role in future student assessment.

Developing standards depends both on examining actual performance of different groups and trying to develop consensus among educators and the public.

Standards may exist at many levels of sophistication and excellence. They can be set very high (Elvis Stojko's skating, Margaret Atwood's writing, or John Polanyi's work in chemistry), or they can describe realistic expectations and worthy and appropriate goals by which to judge student performance. It is important to note that there is no one way to define a standard: there must be a variety of concrete examples, known to all concerned, that make expectations clear.

One of the most difficult and challenging tasks in education today is establishing these standards, based on informed consensus. Once we have a useful set of outcomes that describe what students should know and be able to do, for example in mathematics by the end of Grade 3, we can assess their performance and compare it to the standards that have been established.

The Ministry of Education and Training has begun to develop standards in language/literacy and mathematics/numeracy. These are based on the learner outcomes for *The Common Curriculum* for language and mathematics and suggest different levels of performance such as "limited," "adequate," and "proficient" for students at the end of Grades 3, 6, and 9. A student's performance can fall into one category or another in each subject, and within each subject in several areas. The math standards, for example, are built on areas within math that are specified in *The Common Curriculum* as "measurement," "problem-solving," "algebra and patterning," etc. These standards are intended to provide descriptions of expected levels of achievement by which students' learning can be assessed, and to provide a clear basis for board-wide and provincial assessments of student achievement. As we said earlier, learner outcomes and standards must be very clear for all foundation subjects: language, mathematics, science, computer literacy, and group learning/interpersonal skills. As these standards are developed and refined, they will become the yardstick against which teachers and the public can measure student performance. In fact, the Ministry of Education and Training has already indicated that it plans to use the standards as a basis for assessment at the end of the three grades, although it has not been specific about how it intends to carry that out.

We are convinced that the Ontario government, and educators' professional associations and bodies, must make a serious, long-term commitment to assessment, both for improvement and for public reporting and accounting. While public discussion of the issue often focuses on large-scale assessment as an indicator of how the system is working, it is also a tool for improvement. As a commission on *learning*, we are very concerned about the quality of assessment, formal and informal, that occurs daily in the classroom, and that informs, or should inform, students, teachers, and parents about improving performance. Much more than large-scale assessment for public accounting, this level of frequent and cumulative assessment has the potential to increase and enhance learning.

Assessing individual students

This section covers four issues. The first, and most important, is assessment for improvement; second is reporting clearly, accurately, and fairly what has been learned. In our opinion, fairness means that individual student assessment is consistent – that a 75 percent at one school is not a 65 or an 85 percent in another; moreover, parents must be accurately informed about what their children have achieved in relation to explicit and universally applied standards.

Third is the role of information technology, which has a significant contribution to make to improving assessment practice. Finally, there are issues of bias in assessment – evaluating students fairly across gender, social, and cultural lines.

"Too much emphasis in high school on grades/marks, not enough on education."

Ontario Secondary Students Association, Central Metro West Region

"OSSTF believes firmly in accountability and is prepared to support the development of meaningful standards for education achievement in Ontario."

Ontario Secondary School Teachers' Federation

voices

Assessing for individual improvement: The most important reason

The most important use of assessment is as a way of finding out how well students are doing in order to help them learn better, more, and faster. Assessing what students know – and what they don't – enables teachers to capitalize on students' knowledge, and focus on gaps in it. Furthermore, by examining student performance, teachers have the opportunity to assess the success of their own methods and efforts. Evaluating students regularly enables teachers to monitor learning, and make changes when learning is not occurring, not occurring fast enough, or not occurring in sufficient depth. Regular evaluations, with frequent and detailed feedback from teachers, assure students that they understand what is being taught and can move onto the next task, thus advancing student learning. We call this formative evaluation, because it helps form the learning and teaching needed to achieve success.

Large-scale assessments, used to monitor the school, school board, or province as a whole, and individual assessments (such as final exams) used for marks and accountability, are not very useful to individual students. First, students, who need immediate feedback, typically do not find out how well they did on these tests for some time. Second, the results may be just a letter or a number, rather than an analysis of strengths and weaknesses. Third, large-scale tests usually ask questions that are easy to mark, but do not measure problem-solving, analytic ability, or understanding.[6] While marking of surface features like capitalization and punctuation may be carried out by computer, such assessment methods cannot adequately cover content, style, and other elements; nor can they distinguish between a wrong answer which reflects real misunderstanding or ignorance, and a wrong answer which reflects simply a mechanical error.

> Teachers and students alike show disrespect for learning and teaching that emphasize "just the facts," are not applied to "real" problems, are "low level," or require "regurgitation." In spite of these espoused beliefs, much teaching and learning is shallow, and there is legitimate concern that this is the result of evaluation practices and perceptions of them.[7]

It is essential that assessment be a regular part of learning. In Ontario, classroom assessment has been the typical vehicle for assessing individual student learning. It is part of the daily experience of educators and students, an integral part of classroom activity, and occurs frequently. It may be formal or informal and is often indistinguishable from instruction; it may take place with an individual or in a group. Classroom assessment includes oral questions, teacher-created tests, quizzes, essays, assignments, examinations, projects, as well as observations of performance, and any other products or samples of work that might provide information about performance. Because it is frequent and varied, classroom assessment can tell far more about what a student knows and has learned than any single test. Teachers have opportunities to observe whether or not students are learning to think critically, to make connections between prior and new learning, and whether they take pleasure in learning. "Using one assessment procedure is like using a hammer to do everything from brain surgery to pile driving."[8]

If a test is to give accurate data on a student's full knowledge and understanding of a single concept, it must comprise a number of questions. Telling, reliably, what a 10-year-old knows about math requires a lengthy test. A test that would give reliable information on what that 10-year-old knows about math, language, science, and computers would have to be administered over several sessions, would probably take on a significance in the minds of teachers and students that exceeded its value, and still could not provide the accurate and meaningful evaluation of continuous classroom assessment.

In the classroom, students can work on projects that result in a useful product, or in a real discovery about how things operate. They can write – on paper or on a computer screen – for a real audience, whether a student in another school, near or far, or for the newspaper of the school or the town.

> A lot of intelligences really can't be tested for, in the sense that we usually use the word "test." What we need to do is to create school environments where you can observe a lot about what kids are good at, what interests them, and where they show substantial growth.[9]

While professional preparation and continuing professional education may expose teachers to all kinds of assessments, good assessment for improvement requires much more attention than it has traditionally received, more than can be delivered in a one- or two-year pre-service program. Designing and marking tests and other assignments (papers, presentations, projects) should be a priority in professional development, as should the systematic use and interpretation of information based on observing and meeting with students. Such training cannot stop when a credential is awarded: it must continue in schools.

Although it is common for educators to point out that the danger of large-scale testing is that it tends to measure what is most easily measurable, it is equally true that accurately evaluating more complex thinking skills in the classroom demands careful training, extensive supervised practice, and the development of skills that are seriously neglected in teacher education.

For example, when students are asked to summarize a story, their product – the summary – can be at the simple level of listing all the ideas in the story or text, in which case the writer shows immaturity in carrying out the assignment. (This may be quite appropriate for a young learner, but it is unsatisfactory later on.) A more adequate summary shows some judgment: the reader selects the main ideas, and links them together sequentially. But this kind of summary still attempts to pay equal attention to each section or episode of the text, to summarize the plot, and usually goes on at length. A summary which shows real comprehension and proficiency (beyond listing and linking main ideas) examines underlying themes, pays more attention to some main ideas than others, or even constructs new ideas, by building on the significant themes of the text – the famous "reading between the lines." Reading and assessing students' work for higher levels of literacy, what some call depth of processing in learning,[10] is not something that all teachers know how to do, or how to describe to students and parents. But it is the kind of analysis and assessment that is necessary, if we are to teach and to assess for understanding.

Based on what we learned in the hearings and from the research, teachers must provide more and better feedback to students and parents, which pinpoints strengths and weaknesses, results in teachers and students and parents doing things differently, and is timely enough that it contributes to what the student is learning now, and what the teacher is teaching now, rather that to what was taught but not learned weeks or months ago.

In essence, this is like coaching: for example, a teacher observes a student making an oral presentation on the use of the computers in graphic design and finds that he or she speaks too quickly and does not frame the presentation in a manner that allows the listener to follow easily. Rather than waiting until the term report and noting that the student is weak in presentation skills, the teacher needs to tell the student as soon as possible that speed and organization need improvement, help map out a possible reorganization, discuss techniques for slowing speech, and offer an opportunity to try the presentation again.

Our belief is that the first report card of the year, whether at the end of October or in December/January, should not contain surprises for parents. It should not, for example, indicate that the youngster is reading below grade expectations, when the parent has not previously been made aware of the problem. We know (because we heard about it and

because some of us have experienced it) that it does happen, and that it should not. The report card may not always bear good news, but the contact between parents and teachers should be frequent and consistent, whether or not students are performing according to expectations.

Parents need to see the results of routine classroom tests and the evaluations of regular classroom assignments throughout the year, starting in September, as well as portfolios of students' work, with indications of progress made from earlier to later efforts. Teachers need to inform parents about what has been covered in recent weeks and what is coming up; they should tell parents how, at home, they can support their children in gaining specific skills or knowledge.

Our strategy for enhancing individual student assessment for improvement, including helpful feedback, involves giving teachers the information and skills to link better assessment to student learning. Programs that build the capacity to reliably and consistently evaluate writing, problem-solving, understanding, and analysis in all subject areas – in other words, to assess the achievement of the higher-order literacies that we want our graduates to have – are an investment in the ability to measure what matters most. They are a commitment to teach, re-teach, and teach better. Such programs demand considerable time, and thus can be expensive, as is most high-quality, professional training. But, to the extent that we can teach teachers to evaluate complex thinking skills well and consistently, we build the capacity to measure well what matters most.

Consistency is tied to fairness – a subject about which students said a great deal. Right now, the only training teachers get on consistency in assessing critical thinking and communicating skills is in relation to provincial subject reviews and OAC examinations (given in the final year of high school for students preparing to enter university); these do not affect most teachers. But all teachers need to be better educated in assessing, whether that is being done through written tests, essays, presentations, or projects.

Because we are care above all about learning, our first concern with assessment centres on teachers' ability to assess student work accurately and consistently, and to communicate effectively to students (and to parents) how they can improve. We are convinced that assessing for purposes of improvement always depends on the teacher's ability in both assessment itself and on response to the results. That is why

"Parents are interested in performance, clear standards of achievement, clear sequential programs. They want measurable outcomes that show whether a student knows a core body of knowledge and skills. We want to know what our children are learning, how they are going to learn it, and how parents know their child has learned it."

Maureen Somers-Beebe, Peterborough

voices

the first recommendation we make about assessment is that efforts in this area be the subject of teacher education at every level: in faculties of education, school boards, schools, and continuing professional education at such post-graduate institutions as the Ontario Institute for Studies in Education (OISE).

Assessing understanding, critical thinking, and the ability to generalize, synthesize, and apply knowledge from one situation to another is very complicated and requires considerable experience and practice. Reporting the results of such assessment takes time – to think, to write, and, often, to discuss results with the student and/or parent. The necessary skills are built throughout the teacher's career. We believe that a great deal of the practice and training should take place in the school, with teachers working systematically in teams to mark papers and presentations, and to discuss their ratings, guided by consultants who have expertise in assessment.

Recommendation 46

**We recommend that significantly more time in pre-service and continuing professional development be devoted to training teachers to assess student learning in a way that will help students improve their performance, and we recommend supervised practice and guidance as the principal teaching/learning mechanism for doing so.*

We hasten to point out that we are *not* suggesting that teachers test or assess more or mark more papers, but that they bring a higher level of professional training and expertise to the process of assessing and reporting on what students have achieved.

Accounting for student assessment: Reporting what is learned

> Accountability begins, then, with something more humble than large-scale testing: it begins with ... teachers monitoring and adjusting the daily homework and classwork of students rigorously and consistently. It begins with not accepting work that is shoddy ... It begins with a policy that says schools will send reports home more than twice a year. In short, if you want to stop the kind of minimal compliance and perfunctory work that can sink a school, you'll need an effective and timely grading system, reporting mechanisms, and promotion standards.[11]

Thus far, we have discussed the importance of assessing students for improvement, giving all students a fair opportunity to demonstrate what they know, and offering feedback to students and parents to keep them apprised of the students' progress through frequent and consistent communication.

The final report for the term or year/semester is particularly important: it tells student and parent what level of learning has been achieved in the required knowledge and skills for that course or year. The evaluation summary that appears on the year-end report is permanent: it goes into the Ontario Student Record and may be used by other teachers for planning, or as a way of diagnosing student performance. The report may also be a factor in decisions about course or class placement, streaming, and planning for post-secondary education. Hence, the quality of that assessment has long-term significance. Schools and teachers are accountable to parents for its accuracy and reliability.

We heard from parents and others that report cards are not very helpful: they are unclear or lack sufficient information on how much the student has learned and where the focus for improvement should be. While some parents want marks in letters or numbers, others want more detail and a better sense of how their children are doing. Many parents brought report cards to our public hearings, or sent them, pointing out inconsistencies and "edu-babble." These examples did not reflect well on the teachers, principals, schools, or school boards involved.

While parents who are in regular and friendly communication with a child's teacher are likely to be well informed about the child's progress, that level of communication isn't always maintained: a parent may not be able or willing to articulate concerns or misgivings, or may not always understand or agree with the teacher's analysis. More frequent and more candid communication would do more to correct this problem than any increase in assessments or testing.

Teachers have an obligation to be sensitive to parents who don't understand, don't agree, or who have difficulty articulating their concerns. They have to reassure parents who are afraid to voice misgivings, lest their children suffer some form of retaliation. The fact is that no report card, no matter how precise, makes good communication between teacher and parent obsolete or less vital to the student's well-being.

Parents also want to know how their children are progressing in terms of acceptable and universal standards which, until recently, had not been established. Now that they have begun to be established, standardized assessment is possible – as long as teachers are equipped to carry it out.

As already noted, the recent development of learner outcomes and standards is helping to create a clearer and more provincially consistent basis for curriculum and standards on which assessment will be built. That is a crucial step. We have urged the Ministry of Education and Training to develop "curriculum guidelines based on the learner outcomes that will give teachers and parents a clear idea of the basic structure of each curriculum area each year." (See recommendations in Chapter 8.) We have recommended that, at the beginning of each school year or semester, schools give parents and students information on course content, based on clear learner outcomes. We have also suggested that the learner outcomes in the common curriculum courses be made more readily understandable, and that

"We recommend that a system of regularly administered standardized tests be adopted. The results of these tests must be analyzed and compared to similar regional, national, and international results."

Kingston District Chamber of Commerce

voices

outcomes statements are needed for all grades and subjects, including the specialized curriculum in Grades 10 to 12.

Clearly written learner outcomes, even without descriptions of different levels or standards of achievement, would make it considerably easier for parents to know what their children are expected to learn and what they have learned. The standards (which have been developed for language/literacy and mathematics/numeracy, and which we have recommended be developed for science, computer literacy, and group learning skills) give parents information they need if they are to better understand and informally assess their children's progress. We believe that reporting to parents should be based on the same learner outcomes and standards as the curriculum. Thus, in a parent-teacher-student conference, parents should be shown examples of work of different standards, so that they can fully understand their own child's level and mark. Report cards should reflect the student's level of attainment of major outcomes, measured by adherence to clear and universal standards.

Goals are made clear if, at the beginning of the school year, parents and students are provided with a written description of expected outcomes, and then get feedback on students' learning throughout the term or session; report cards must be consistent with this information. The importance of evaluating students according to uniform and explicit standards also pertains to issues of fairness and consistency.

An individual student or parent says, "It isn't fair that teacher X (and/or school Y) gives much easier marks than my teacher (school). It gives those students the advantage of a higher average and means they get a place in university that is denied to me, even though my 80 percent is worth as much as their 90 percent." Beyond the individual's complaint, universities and colleges worry about screening applicants to get students who are most likely to be successful. Employers worry about the meaning and value of a transcript or diploma. Society worries about whether its best and brightest have opportunities for higher education so that they can become pillars of a productive and competitive society.

Because teachers have been held responsible for using uniform, consistent standards that did not exist, they have used their own. The supposed objectivity of numbers, percentages, and letter grades obscures the fact that standards differ; a provincial standard should mean that, while differences in teachers' marks will never completely disappear, they will be fewer, smaller, and less significant.

It is of course true that we can never eliminate all subjectivity in assessment, and cannot pretend that there is or ever will be a fool-proof objective test of everything we want students to know. We can, however, take steps to modify and decrease, albeit not eliminate, inconsistency among teachers in marking.

We have spoken earlier of the necessity to improve teachers' ability to assess students' work accurately and consistently, and of our belief that this professional education must begin early and continue through the teaching career. In order for that training and practice to be most efficient and effective, it is highly desirable that its content be determined by the learner outcomes and standards which teachers will be assessing students on. In order to offer this support, it will be essential to create resource materials and manuals keyed to the curriculum, to guide teachers both at the training and application stages. Such materials must give multiple examples of how the achievement of specific outcomes at various levels (or standards) can be consistently measured. "There is no reason why we have to be assessed in the same way ... If I understand a mathematical principle and I can show you it one way, it's not really important that I show it to you in another way." [12]

Recommendation 47

We recommend that the Ministry of Education and Training begin immediately to develop resource materials that help teachers learn to assess student work accurately and consis-

"There is a betrayal of educational standards to the point where school reports are meaningless, couched in educational jargon, and designed more to hide and confuse than to communicate."

Newmarket parent B. Heydorn

voices

tently, on the specific learner outcomes upon which standardized assessment and reporting will be based.

One valuable resource has already been developed, but needs to be updated and refined: the Ontario Assessment Indicators Program (OAIP), referred to earlier, which contains assessment items and ideas for many grade levels and subjects.

The next step, we suggest, is creation of a provincial report card, an Ontario Student Achievement Report (OSAR) based on the outcomes and standards expected in each grade and each subject. In addition to a global mark for each subject or interdisciplinary area (e.g., math or arts), students should be rated on a set of specific outcomes, derived from the common curriculum and provincial standards documents. In the first and second terms, the report should indicate the extent to which the student is (or is not) making good progress toward the achievement of each of the several outcomes related to the particular subject and, at the end of the school year, has or has not achieved that outcome at a satisfactory level.

In the term (and possibly the final) reports, the teacher should include practical and specific suggestions for students and parents for progress and how it can be achieved. The teacher who works at being a capable assessor of foundation skills will give parents the information they want: a clear indication of where their children stand as measured by provincial standards. In other words, we believe the accountability so many parents are asking for is based on clear standards, and on able teacher-assessors making unambiguous reports, the core of which (the key learner outcomes reflected in the report) will be the same for all teachers of the same grade or course. We also believe that teacher comments are a very important part of any report card, and should refer to significant, authentic demonstrations of knowledge and skills, or to indications of genuine difficulties.

We also suggest that, after Grade 9, when students follow different programs each semester or year, it is desirable to have the same kind of standard reporting format. We have recommended the development of learner outcomes for the courses that follow the common curriculum of Grades 1 to 9; once they exist, the OSAR is equally appropriate after Grade 9. Each subject teacher would indicate the extent to which the student is achieving the expected outcomes, give the student a global mark in the subject, and include helpful comments to the parent. In keeping with current practice, subject teachers' reports would be combined into a single report, possibly with comments from the home-room teacher or advisor-teacher who examined the student's progress across subjects. All of this could be greatly facilitated through the use of standard forms and computer programs developed centrally by the Ministry of Education and Training.

We do not want to remove the flexibility of teachers and schools in reporting to parents in a way that reflects local needs and preferences. We suggest that the Ministry prepare a common report card based on the expected outcomes in each grade within the common curriculum (and each course within the specialized curriculum) and that it provide an electronic copy to every board; boards could seek permission from the Ministry to make additions, but not deletions, and any substantial changes in content or format would require the approval of the Ministry. Of course, boards could add other documents, as long as the Ontario Student Achievement Report was the main vehicle of communication. There should be ample room for teacher comments as well as the check-offs on achievement levels. Translations should be provided by the Ministry for parents who do not read French or English, and a Braille version could also be developed.

The Ontario Student Achievement Report should be designed by a team of educators and assessment experts, with significant input from the community, (through the Ontario Parent Council, for example) and, at least at the secondary level, from the three student federations or the

Ontario Student Council (see Chapter 17). The OSAR should be field-tested initially and reviewed regularly to ensure that it meets the needs of teachers, parents, and students.

We are not suggesting that the OSAR for Grade 1 be the same as for Grade 7, even with differences in outcomes. We believe that professional educators, students, and parents are in the best position to decide how reports should be structured, given the differences from one age to another. The key criteria are clarity, a direct link to learner outcomes in the curriculum, and input from the users.

Recommendation 48

**Therefore, we recommend that the Ministry of Education and Training, in conjunction with professional educators, assessment experts, parents, students, and members of the general public, design a common report card appropriate for each grade. To be known as the Ontario Student Achievement Report, it would relate directly to the outcomes and standards of the given year or course and, in all years, would be used as the main vehicle for communicating, to parents and students, information about the students' achievements. While school boards would not be permitted to delete any part of the OSAR, they could seek permission from the Ministry to add to it.*

We come now to the matter of setting a standard for communication, one that recognizes the importance of assessment and the right and need of parents to have information on their children's progress, if they are to support learning and the school.

We believe that, in each school year, all teachers should have a minimum of two conversations, in person or by phone, with the parents or guardians of each student for whom they carry prime responsibility.

These conversations (and we see two as a minimum), which are in addition to the formal conference at report-card time, should focus on student achievement, improvement, and concrete suggestions about what parents can do to support their children's learning. From kindergarten to Grades 5/6, this would include all the students in the "main" class, while students in a rotary system would be the responsibility of a home-room teacher or a teacher-advisor, as recommended in Chapters 8 and 9.

"Teachers are concerned about the way information dealing with student achievement can be misused or misrepresented, or as is more frequently the case, student achievement tests are not discussed within the complete educational context."

Federation of Women Teachers of Ontario

voices

We suggest that the first conversation take place prior to the first report if, as often occurs, that is scheduled as late as December; beginning in Grade 7, the discussion would probably make reference to the development of a Cumulative Educational Plan (CEP). (See Chapter 8.)

We are convinced that the key to assessment for accountability to parents is teacher-based standardized assessment which indicates how much progress students make over a year toward the achievement of critical learning outcomes. We think that the government would be wise to invest the considerable monies necessary for good assessment where there is the biggest payoff for students: in extensive, high-quality teacher education for extensive, high-quality, standardized, classroom-based assessment.

The uses of information technology in improving student assessment

> In our opinion, information technologies, and in particular microcomputers, can help implement educational practices in accordance with the principles of formative assessment. First, they enable data to be collected and analyzed coherently, and second, they help to improve teaching and student learning.[13]

We agree that the computer has an important place in individual student assessment, particularly in its potential for giving students quick feedback on how much and how well they have learned.

Eric Dempster, head of the Business Department at Sir Wilfrid Laurier Collegiate Institute in Scarborough, e-mailed a submission to the Royal Commission, giving an example of the way technology can be used in testing, in order to

"Our fear is that standardized testing may be based on a mythical student profile to which all students will be compared ... Teachers are opposed to standardized testing for the purpose of comparison of students, schools, teachers, and systems. Such testing undermines the partnership concept, and produces fear, isolation and negative results."

Waterloo County Women Teachers' Association

voices

improve student learning. Mr. Dempster says he first used computers for assessment six years ago and allowed students, including those who would have failed but had never been given the opportunity to do better, to take tests more than once. Mr. Dempster averaged the test marks, which provided an incentive to do well the first time, but also showed students they could improve. "The overall result [was] that the poor students felt empowered and realized quickly that they could improve."

His present testing software randomly generates questions, prevents students from restarting a test, and includes graphics.

The students in Mr. Dempster's class are learning more than just the subjects he teaches: they are discovering that they can improve, and that self-assessment is an important part of the process. Many employers told us that, if they are to stay competitive, future workers will have to be experienced in self-assessment. And, because it involves the student guiding his or her own learning with the support of technology, self-assessment also has the potential to increase the teacher's role as coach and mentor.

Mr. Dempster's experiences have been replicated in classrooms where Computerized Adaptive Testing (CAT) is being used: the computer chooses a question on the basis of the answer to the previous one.[14] A correct response results in a harder question, while an incorrect one elicits an easier question. This quickly clarifies the level at which a student is working, and uses few questions to do so; it also pinpoints for students the areas in which they need more help and/or more practice, and makes them responsible for their own progress.

Immediate feedback can be used to motivate students who might otherwise have very little interest in school. This was one finding of a pilot project in New York City [15] that involved a group of inner-city students considered most at-risk of dropping out. They visited the computer lab once a week and took computer-generated "adaptive" math tests. The computer provided students and the teacher with immediate feedback, "rewarded" students who reached 100 percent in each topic with a graphic of a hamburger, and generated practice sheets for the rest of the week.

Contrary to common expectations of them, many at-risk students in the experimental group sought to do well in the computer tests. Sometimes they argued with the teacher that a response marked by the computer as incorrect was, in fact, right, thus indicating that the assessment mattered to them. An unexpected result of the pilot project was student-generated competition for the hamburger. Over time, the students did better in math, as the result of the "friendly competition," the immediate feedback, and the work of the classroom teacher; moreover, they were less often found to be "off task," doing something other than the work at hand.

It is also interesting to note that, contrary to other research findings, the female students were more comfortable with the computer than were the males.

For some time, technology has been used in assessment, to collect and sometimes analyze achievement data. Teachers are already keeping track of how well students do in assignments and tests, and there is software that enables teachers to graph or otherwise display and analyze the data.

We are certain that, with more and better data, teachers will be in a better position to decide on the best types of programs and interventions for their students. Better information and new ways of displaying it will mean improved reporting to parents. As well, computer-based assessment and diagnosis will reduce marking time for teachers, eliminate errors in marking, and offer opportunities for different test formats and for tests in other languages.[16]

However, good assessment software (of which there is an inadequate supply) should do more, moving students from simply accumulating facts to organizing, analyzing, and transforming data. It should measure the quality, rather than simply the quantity, of the student's understanding. And it should be capable of making assessments using portfolios and "real-life" performances based on provincially set

standards, with fewer multiple-choice (sometimes called "multiple-guess") tests to compare one student with others in the class, school, or province. Software that requires students to solve problems, that includes high-quality three-dimensional graphics, and that requires students to present their answers and solutions in a variety of formats, will challenge students to show they *understand* rather than just *remember.*

There is a long way to go before Mr. Dempster's on-line assessment is the norm in Ontario's schools. Change of this nature requires professional development, adequate hardware, and the right kinds of software, screened for bias. (And, as we make clear in the next section, equal access to computers is a necessary element in eliminating assessment bias.)

We believe that the potential of information technology to improve assessment is substantial, and suggest that information technology play a prominent role in teacher development in assessment, and that the Ministry of Education and Training, in making high-quality software available to Ontario schools, place emphasis on the potential that software offers for improving assessment.

Avoiding bias in assessment: Respecting differences, recognizing diversity

> The notion that a student, because of colour, race, or handicap might be streamed to an educational program which is not consistent with the attributes and abilities of that individual is unacceptable.[17]

We have discussed the importance of frequent and accurate assessment of student learning and literacies, and recognized the link between timely feedback and effective student learning, as well as the need to report to parents and the larger public. However, the Commission is very aware that assessment, when not carried out well, can have serious negative repercussions on individuals and on groups of students. The challenge to be effective, helpful, and fair means ensuring that assessment is done well, not that it is avoided.

Assessment must be as bias-free as possible, so that gender, social class, race, culture, and disability are not treated as negative factors. The results of assessment, even of routine classroom assessment, are likely to have an important effect on the confidence and motivation of students, which, in turn, affects performance. Assessment may also have an impact on the student's academic career, and has the potential to cause life-long damage to the person who is assessed below his or her real ability and streamed into lower groups (the "lambs" rather than the "lions" reading group), special education classes or non-university high school streams.

> A growing number of parents and educators are raising questions about the over-representation of minority students in special education, vocational, and basic-level programs. The essential concern focuses upon the perceived use of inappropriate testing materials, assessment practices, placement strategies, and restrictive learning opportunities in some jurisdictions.[18]

Many groups are concerned about bias.[19] Various forms of assessment have shown that those who are poor, members of some minority groups, or who are female perform less well than their knowledge or skills would warrant. Some communities complain that their students have been negatively streamed because of biased assessments. For example, more than a decade ago, a York University symposium on racial and ethnic relations in city school boards was told by Marcela Duran that

> we were able to institute an experimental program, in co-operation with the Jamaican-Canadian Association, in which 100 West Indian children who had been placed in vocational schools were re-assessed, using different testing instruments. According to this process, 90 of these students were found to have been wrongly placed.[20]

"Many standardized measures of assessment traditionally used are racially, culturally, and linguistically biased; assessments which rely heavily on the results of such tests contribute to an accumulation of information about minority children that is often invalid and prejudicial ... and have serious implications for students' long-term career aspirations."

Anti-racist Multicultural Educators' Network of Ontario

voices

We agree that there is ample evidence that students from some groups are more likely to be placed in lower "ability" classes and streams than others,[21] and that assessment methods may figure in those decisions. But we are convinced that improvement depends on more than just modifying assessment procedures: changes are needed in curriculum, teaching methods, and other areas (including, as we make clear elsewhere in this report, a fundamental reduction in streaming).

Given the importance of assessment, it must not only avoid bias on the basis of gender, social class, or cultural background, it must reflect diverse skills and knowledge, valuing what students know and can do, even if they express it unconventionally or do it in different ways.

In Ontario, as in other Canadian jurisdictions, in the United States and in England, a great deal of attention has been paid to the way assessment bias affects minorities and immigrants. This is because some minorities and immigrant groups, as well as students from poor families or communities, are over-represented in special education classes and non-university streams.[22]

Test bias exists in many different contexts: for example, despite our support for computer-based assessment, we recognize that bias can be found and perhaps even made worse by the use of information technology. We know that students from different socio-economic backgrounds have different levels of access to computers and, therefore, that some will be more at ease than others and that comfort levels undoubtedly affect results.

Four potential causes of bias have been identified in assessing students who are members of ethnic or racial minorities or who are immigrants: bias in the test's content and form; in the way the test is given; as a result of factors in the student's environment, in or outside school; and in the ways results are interpreted and reported.[23] Many of these are related to the inadequacy of teacher education in assessment, and lead to inappropriate student placements.

> Educators must also be careful, when assessing students of ethnic/racial minority backgrounds for placement in special education programs, to ensure that due consideration has been given to linguistic and/or cultural factors that can preclude fair and accurate assessment.[24]

Assessments of many second-language students do not adequately differentiate between language-related difficulties and the actual level of knowledge or skill the students possess. The person who thoroughly understands all the material at hand will not be able to answer even the simplest question, if he or she does not comprehend the language in which it is being asked. There is the related problem of confusing linguistic deficits with deficits in ability. Students who have emigrated to Ontario may need time to learn the language, but that does not necessarily mean they need remedial or special education.

There is also the issue of measuring students in terms of what they have learned or are capable of learning, in contrast to assessments that have more to do with the learning environment than with any inherent characteristic of the learner.[25] Is the "learning-disabled" student genuinely disabled, or is the problem a lack of instruction in reading, in disguise?

Before decisions are made to place students in special education classes or in non-university streams, there should be evidence that they cannot achieve progress by changing curricular material or being assigned to a different teacher, and that modified regular-classroom teaching strategies that are being used successfully with other youngsters from a variety of ethnic, linguistic, and socio-economic groups are not working.

> Stereotypes develop as we attempt to organize people into categories and to make sense of our world. That in itself is not the problem. However we are in real trouble when these categories are so closed that they prevent us from seeing people's full potential.[26]

summary

Assessment must not only avoid bias on the basis of gender, social class, and cultural background, it must reflect diverse skills and knowledge.

There is also evidence that, on multiple-choice tests, girls and women do not do as well as boys and men. According to a joint study by the College Board and the Educational Testing Service in the United States,[27] "the gender gap is substantially larger for multiple-choice items than for other types of questions." The study found that the gender gap narrowed or disappeared when students had to write their answers, as in essays or word problems. The study concludes that a mix of assessment instruments is necessary to ensure equity in high-stakes standardized testing.

Another form of gender bias is found in tests that include questions or examples related to activities more frequently of interest to males than to females – certain sports, for example. Obviously, assessment tools must treat male and female students equally, and must meet the needs of our diverse school populations.[28]

In trying to remove bias from tests, efforts have tended to focus more on the material than on training teachers to construct bias-free tests or to use fair testing techniques. This is baffling, given that most forms of assessment – tests, assignments, projects, oral discussions, etc. – are part of the daily interaction between the teacher and students. Clearly, more attention must be paid to teacher education and to ongoing professional development.

More frequent and more varied classroom assessment is another way of minimizing bias, but it presupposes that the teacher is familiar with a variety of techniques. When testing or examining students, giving them a choice in the way a question is answered also helps.

A fair assessment also takes the individual student's environment into account. For example, assessing for placement purposes may be inappropriate for a recent refugee or for a student who has just moved from French immersion to an English-language program. Assessment in the student's first language has been shown to isolate problems related to acquiring a second language, rather than to gaps in knowledge or skill, and it should be used where suitable and possible.

Teachers must have a sense of whether or not students and parents believe that an assessment is fair; if they see it as unfair, there is, at the very least, a problem of communication and there may also be one of equity. When it is impossible to test a student in a first language or to delay assessment of a refugee student, it is vital that the student not suffer as the result of our lack of resources or time. That means, for example, not placing the refugee student with younger children when a test might reveal that what is needed is a specially planned program with specific kinds of support.

Bias in assessment will become increasingly important as Ontario participates more regularly in assessments that encompass other provinces and other nations. This is particularly true in a province that is geographically and socially diverse, and that will become even more culturally and linguistically varied. Fair assessment is vital if the system is to more fully reflect the needs of all students.

> As a tool for tracking students into different courses, levels, and kinds of instructional programs, testing has been a primary means of limiting or expanding students' life choices and their avenues for demonstrating competence ... [T]he goals ... of assessment are being transformed from deciding who will be permitted to become well-educated to helping ensure that everyone will learn successfully.[29]

In our view, the Ministry must take the lead role in ensuring that its own assessment instruments treat all students equitably and that the materials used in schools are appropriate and fair. It can do this by evaluating the substance and procedures used in assessment and by monitoring the placement of various groups by stream (or track). The Ministry's new anti-racism, equity, and access division can lead the effort to ensure fairness in assessment. It should also be responsible for monitoring implementation of recommendations made by the Consultative Committee on Assessment and Program Placement of Minority Students for Educational Equity.[30]

Recommendation 49

**We recommend that the Ministry monitor its own assessment instruments for possible bias, and work with boards and professional bodies to monitor other assessment instruments; that teachers be offered more knowledge and training in detecting and eradicating bias in all aspects of assessment; and that the Ministry monitor the effects of assessment on various groups.*

Large-scale assessment of student achievement and the effectiveness of school programs

Large-scale assessment of student achievement

Having said that assessments should be based on agreed-on standards, and that teachers should be trained to use them skillfully and fairly and to communicate their results clearly, we turn now to the matter of external tests, given simultaneously to all students in a grade or course. Some people believe that these are a more objective and therefore fairer and more accurate measure of what students have learned. We believe that some system-wide testing should be built in, as a check on student learning at a few critical transition points, and as a vehicle for assuring people that, at those points, all students are being assessed according to the same yardstick.

However, it is important to emphasize that large-scale testing has limitations; otherwise, people reach what we are convinced is the mistaken conclusion that these few tests are the most important in the student's school career, or that many such tests would be ideal. In our opinion, large-scale testing is unlikely to be a more fair and accurate representation of student learning than the best judgment of the well-trained teacher-assessor. Moreover, such testing is easily misused. The following are the three basic problems of using large-scale testing as the major form of student assessment.

First, any external testing is, of necessity, much briefer than classroom-based assessment: a single test cannot reflect everything students are expected to learn over a year. For example, to get a true reading of what a Grade 6 student has learned in math, a number of tests would be necessary, each quite lengthy, to overcome such irrelevancies as the student's level of well-being (hours of sleep, nutrition) that day, or the use of an unfamiliar word in a problem (which might lead to the erroneous conclusion that the student didn't understand the question or the mathematical operation), etc. The reason we are urging that the major source of data on student achievement be that which is collected by the classroom teacher over the year is precisely because that is what offers the greatest potential for reflecting, cumulatively and in summary, what has been learned. A simple achievement test, such as the Canadian Test of Basic Skills, or others of that kind, is not designed to reflect what children know in any depth. Its purpose is to arrange students along a continuum, from those who know most to who know least, in order to make placement decisions. Such tests are not measures of how well teaching and learning have occurred.

> Let's say, for example ... that you get a certain score on a standardized test. Can I assume then that you understand something? You might say, "Sure, because those tests test for understanding. But ... research indicates that most students in most schools ... do not really understand ... When you ask students who get very high grades ... to explain a physical phenomenon, not only can they not explain it but they actually give the same sort of explanations that four- and five-year-olds give ... We can only really determine whether a student understands something when we give the student something new, and they can draw upon what they have learned to help answer a question, illuminate a problem, or explain a phenomenon to someone else.[31]

> Testing is no panacea for an education system under stress. After all, a mechanic can inspect a car without making the necessary repairs. The long-term educational improvement lies with a comprehensive restructuring of the enterprise, not in resorting to the proverbial "quick fix" of a standardized test. The public needs to be informed about the growing array of assessment tools, but also about how

"The Ministry should engage in annual, province-wide testing of all children of the curriculum content... and the test results should be clearly communicated to teachers, parents, and students."

Evelyn Dodds, Thunder Bay

voices

they should be interpreted to improve student, school, and system-wide performance in education. For that reason, testing is only one part of a more comprehensive education restructuring package.[32]

Second, because of their necessary brevity and because thousands of tests must be marked quickly, external tests usually tend toward short-answer and multiple-choice questions, with all their severe limitations on measuring understanding and learning skills. They are the classic case of measuring what is easiest to measure, not what is most important. We are not suggesting that such tests can't measure certain important abilities we expect all students to have, only that they cannot and do not measure all, or any representative sample, of them. They are biased toward certain kinds of learning, and there is ample evidence that such bias distorts the curriculum in ways that are unhealthy in an educational system that is serious about learning.[33]

Third, any single test used for large-scale assessment and reporting assumes a distorted importance, and can – and often does – have long-term, frequently negative consequences for students and for the learning system, because of the inappropriate ways the information is used. Tests meant to measure whether most children have learned the year's material should not be used to make decisions about students' capacity for learning, or their long-term ability to succeed in school or in the regular program. The problem is that, typically, test scores end up being put to such inappropriate uses. Placement decisions should not be made on the basis of any single test given on a single day in a student's year; however, that is precisely how they are frequently used.

As early as the late 1970s, evidence began to accumulate showing that high-stakes standardized testing policies were highly corruptible, creating greater incentives for cheating than for actually improving instruction, and that the use of standardized tests for accountability had actually narrowed curricula and driven instruction increasingly towards pedagogues, based on memorization and basic skills rather than improving educational quality.[34]

The 1993–94 Ontario Grade 9 testing for language and literacy (with a similar test being given in 1994–95) can be used as an illustration of these points. It is, in fact, a very good test: first, it took place over more than six hours, spread over a two-week interval, thus giving students an opportunity to demonstrate their knowledge and understanding in a way that would be impossible in a typical one-hour "test of basic skills" or the like. Second, the test did not just ask short-answer questions, but was a genuine assessment of performance.

Nonetheless, by itself, the test would tell us less about what students learned about reading and writing in nine (or fewer) years of schooling than would teacher reports based on clear and consistent standards. Moreover, it did not differentiate among students schooled in Ontario for one, two, or nine years prior to the testing. But it did give us valuable data on how well Ontario's Grade 9 students understand what they read and whether they can write clearly, expressively, and to the point. We do not know yet whether the test will lead to improved teaching and learning, but it was a much better accountability mechanism than most tests – and, of course, at about two million dollars to administer each year, much more expensive. (As we have already pointed out, however, good assessment *is* very expensive.)

We applaud the Ministry's attempt at large-scale testing in order to measure learning authentically. Despite its strengths, however, a test's ability to withstand inappropriate or damaging misuse is much more problematic. The Minister made it clear to educators that the test was to count for 20 percent of the course mark, but was not to be used for making major decisions about student achievement. It was not to affect whether the grade was passed or failed, or whether the students were to attend summer school or be placed in different programs or "streams" in Grade 10. Nonetheless, informally and unofficially, there are indications that, in some instances, it has been used in exactly those ways.

observation

There is a public need for some measure of basic student achievement that is applied in the same way to every student at a few critical times.

Whether these reports are accurate, and irrespective of the number of cases to which they might apply, we see such uses as the natural outcome of large-scale external testing. It becomes "high stakes" testing, even when it is not intended to be.

While we want to be very clear about our lack of enthusiasm for extensive, expensive, universal testing, as opposed to sample-based assessment, we recognize the public's need for some measure of basic student achievement that is applied in the same way to every student at a few points in time. That is why we are recommending two province-wide assessments to be given to all students relatively early in their schooling, with the understanding that educators (most especially school principals) will make it clear that the results of such assessment are to be used by teachers, individually and collectively, for purposes of diagnosing and remediating the individual student's difficulties or gaps in learning. In addition, the tests are to enhance reporting to parents and for examining the content and delivery of curriculum. Test results are, most emphatically, not to be used to place or sort students for any reason. They will serve as a central check on how effectively the curriculum is serving the learning needs of the students, and can be an aid in revising or refining curriculum content or teaching strategies.

We are also recommending that a test, to be given much later in a student's school career, make the secondary school diploma a literacy guarantee.

Assessment for early acquisition of literacy and numeracy: getting it right from the start

We have built a learning system on a strong, early foundation. (See Chapter 7.) We have urged that all children be helped to become literate and numerate by the end of Grade 3. By that time, we expect that almost all children should be able to read and understand materials appropriate to their age, and to write on an assigned topic, or a topic of their choice, showing reasonable understanding of conventional rules of grammar, spelling, and punctuation, as well as an ability to bring organization and a "voice" to their writing. As well, we expect them to be able to use the four arithmetic operations, and to understand when to apply them. We see the value of a check on the success of the system in delivering a program that brings all or nearly all children to a point, by about age 9, that enables them to build on dependable foundation skills so that they can acquire more sophisticated knowledge and understanding. We think that parents will also welcome conversations with their child's teacher that include the results of this universal assessment, and a discussion of the child's future progress.

Recommendation 50

**Therefore we recommend that all students be given two uniform assessments at the end of Grade 3, one in literacy and one in numeracy, based on specific learner outcomes and standards that are well known to teachers, parents, and to students themselves.*

And, in order that these tests have high credibility in the eyes of the public:

Recommendation 51

**We recommend that their construction, administration, scoring, and reporting be the responsibility of a small agency independent of the Ministry of Education and Training, and operating at a very senior level, to be called the Office of Learning Assessment and Accountability.*

This agency will consult with provincial leaders in literacy and numeracy education who can provide leadership in creating assessment instruments that are as valid and reliable, as authentic and comprehensive, as possible. We recognize that principals and teachers will need support and assistance in interpreting and reporting the information gained from these instruments, and would expect both the agency

(through the written material it prepares) and the Ministry to act as sources of expertise for school boards.

The results of these tests should be reported promptly and in clear language to parents individually, to every teacher whose students have been tested, to the local community at the school level, and to the general public at the board and provincial levels.

Assessment for graduation: the diploma as a literacy guarantee

The value of assessment at an early stage, such as the end of Grade 3, is that it gives a clear indication of a child's strengths and weaknesses, and shows where school and home efforts must be focused and monitored. There is also value of a different kind in assessment for accountability near the end of the student's secondary schooling: as a fundamental guarantee, the education system must assure the public that a high school diploma signals adult literacy; that no high school graduate is incapable of reading and writing well enough to communicate in a post-secondary classroom, on the job, or in order to meet the demands of everyday life as a citizen and voter.

Recommendation 52

**We recommend that a literacy test be given to students, which they must pass before receiving their secondary school diploma.*

The test would be given in Grade 11, the year before graduation. Students who did not pass the first time would be able to retake the test until they did, but graduation would be dependent on passing.

Some students who took the test the first time might find that they needed help in order to pass, and they would have an opportunity to find that help, and prepare again for the exam. The test would be inappropriate for some students in specially modified programs (such as those in schools for the severely developmentally handicapped) that do not now generally lead to a diploma. However, we believe that it is reasonable to award a diploma only to those who pass the literacy test.

We propose that other large-scale assessments be applied, not to individual students, but to representative samples of students. These would be used to judge how well the curriculum was being learned, as now occurs in the case of provincial, national, and international assessments in mathematics, science, and other subjects.

The effectiveness of school programs: program and examination review

As we have seen, individual students are assessed by their teachers, with the addition of occasional large-scale assessments, and students' progress and achievement must be reported very regularly to parents.

Furthermore, those who are responsible for the overall quality of the system – the provincial government and local boards – must not only ensure that individual students are progressing, but that the curriculum is being delivered effectively and that, on the whole, students in each grade and subject are learning what they are expected to learn.

This is system-level monitoring of achievement. It does not involve testing or assessing every student or every classroom but depends on monitoring student achievement and teacher practices by testing representative samples drawn from across the province; in addition, these samples must be of sufficient size to provide reliable data at the individual school board level.

In Ontario, two processes are used to accomplish those goals and both are extremely sound approaches to system monitoring. The first of these is the process known as the provincial reviews of curriculum, and the second is the examination review process at the senior level, known as the OAC/TIP program. Both have applications well beyond their present restricted use and reporting. At present, both suffer because they are applied sporadically, rather than systemati-

summary

Monitoring of achievement of learning need not involve testing or assessing every student in every classroom. Representative samples can tell us just as much about how our students and our system are doing, at a much lower cost. This is the methodology of international, national, and most provincial-level assessment. Frequent monitoring of student achievement through regular, sample-based assessment at different grades and subject areas is an important responsibility of the Minister of Education and Training.

cally, across the curriculum, and because the results are under-reported.

Provincial reviews of curriculum

From time to time, provincial reviews of a variety of elementary and secondary courses are undertaken. In each case, the review includes testing of a representative sample of students on the content of the course (for example, Grade 6 reading or senior-level geography), as well as an inspection of curriculum materials, interviews with teachers and students, and other information that helps describe what is taught and learned.

As a result of a provincial review, the Ministry and all school boards have concrete information about the parts of the reading or geography curriculum that are being successfully delivered to students and the parts that are not, based on student performance. As well, they can identify the kinds of resource materials that may be lacking, and the areas in which further teacher education should be offered. These reviews are useful, for both large-scale assessment purposes and for teacher and curriculum development. But they are scheduled sporadically and unpredictably and are publicly under-reported. Moreover, because clear and consensual standards are not established in advance, the results of such assessments are sometimes questioned.

In order to build a good program for educators and make it an effective monitoring mechanism as well, the Ministry of Education and Training should commit to a regular review cycle in all subjects that are part of the common curriculum, with more frequent review in the foundation areas. Subjects should be reviewed at points within the common and specialized curriculum; for example, a history or a geography review might occur every five years and include Grades 6, 9 and 10/11.

Some school boards have used the provincial review to include all students, with no individual identification attached to the test. We applaud this concern for accountability at the local level, and consider it very appropriate because it does not confuse individual scores with evaluating the performance of the staff and students of an institution.

There are, of course, serious concerns about invidious comparisons that ignore many factors over which the individual school has no control. However, the provincial review data have been, and should continue to be, used by schools and school boards to improve teaching and learning at the local level. We believe that review results should be shared with the professional staff and school governance committees of schools that participate, as well, of course, as school board administrators responsible for monitoring and supporting schools. That, after all, is the level at which the data are useful for making improvements to a school. (See the following section for a more extended discussion of this issue.)

The provincial curriculum reviews have also involved teachers as markers, a process exactly like that we described earlier as the ideal professional training for classroom assessment. Working in groups, with the support of experienced markers, teachers reach agreement on what makes one paragraph or paper more or less satisfactory than another, and they establish criteria for judging performance consistently. Thus, the teacher development "spin-off" of the monitoring process is, itself, an investment in better assessment in the classroom.

The examination monitoring process

In the 1980s the Ministry of Education began monitoring examinations used in the Ontario Academic Courses (OACs). This process, which is officially called the OAC/TIP (for "teacher in-service program") was designed to ensure consistency in the quality and coverage of the exam and the marking standards set by each teacher in every course which helps to qualify students for university. The process involves collecting and scrutinizing examinations teachers set and the marks they award to the students' examination papers. All publicly supported secondary schools, as well as inspected

private schools that offer university-preparatory courses in the final year (OAC), must participate in this examination review process. At this point, the process, which has been virtually invisible and unreported publicly, has not been extended to any other courses.

After surveying practices under the OAC/TIP, the Ministry of Education and Training develops a handbook on designing and marking examinations in a particular subject area. Teachers in-service programs inform them about the contents of the handbooks, and schools submit copies of their final examinations and scoring keys, as well as a range of test papers representing high, average, and low scores.

An analysis of the examinations and their consistency with expected standards enables the Ministry to judge the impact of standards; schools that vary from them are required to take corrective action and report to the Ministry on the steps they are taking.

University teachers are also part of this process, although their participation has tended to be based on individual expertise, rather than encompassing any responsibility to represent and report to the larger university community. We suggest that, in future, universities and colleges see their role in the process as an opportunity to present their needs and requirements as part of the formation of standards, rather than remaining outside of that conversation.

We further suggest that professors and instructors who teach undergraduates in a discipline, rather than those at the professional (faculty of education) level, take part in the process. People who will be teaching English, geography, or other courses to first-year university and college students are better placed to participate in decisions about acceptable levels of performance in Grade 12, and to work with secondary educators to help students make the transition from high school to college or university.

To date, the OAC examination review has been conducted in several subject areas (English language and literature, visual arts, calculus, economics, accounting, physics, chemistry, and Français) and is currently scheduled to add one subject per year through 1996. While it is expected that schools or teachers will take action when a review indicates that there are areas that require attention, implementation has not been systematically monitored, and results have not been publicly reported.

This process, like the provincial curriculum review, is especially worthwhile because it involves many teachers in the marking exercise, and, thereby, expands their professional capacity for assessment. Teachers must become more skilled at making professional judgments on the quality of responses to questions that are not simple, multiple-choice or otherwise close-ended. Building this kind of skill and expertise educates teachers in consistent assessment of high-level learning.

The OAC/TIP examination process has all the elements of good assessment and teacher development, but needs better quality control, much more public visibility, and very considerable expansion. As a monitoring program, it can help ensure that a teacher's application of assessment standards is accurate and consistent; this will give increased credibility to a system that depends fundamentally (as any school system must, and any honest school system will readily admit) on teacher education and expertise.

The examination review process, in combination with provincial reviews, gives a reasonably complete picture of what is being learned, and how fairly and consistently that is being assessed. It can and should be taken to the next step, implementing changes in programs, teacher training, and marking procedures, based on what is learned. Furthermore, implementation should be monitored.

The examination review procedure should be expanded to include the full range of Grade 12 courses. Because the process has significant potential for helping to achieve consistency, and because we believe the process should be transparent, it should be extended, and all results should be reported to the public.

Without doubt, considerably expanding program and examination reviews will involve educators in Ontario in more program evaluation than they are accustomed to doing, and will necessitate diverting more funds to assessment. We believe that such efforts and investments are essential; we are convinced that they will be supported by the public, as long as they are carefully designed and implemented, and as long as results are clearly, promptly, and publicly communicated. We see curriculum and examination reviews (what have been called program reviews and the OAC/TIP model of examination review) as an important and ongoing responsibility of the Ministry, in the development of curriculum outcomes, standards, and assessment measures or strategies; and the administration, scoring, and reporting of results.

We envision a cyclic large-scale and province-wide assessment program that:

- identifies the one or two areas (skill, subject, cross-curricular) to be assessed for each of the next three years, with a commitment to extend this schedule by announcing another program each year;
- is centred on established outcomes and standards for assessment that will form the basis for judgments about students' levels of attainment, to be shared with educators and the public for discussion;
- is based on a statistically reliable sample at the provincial level;
- will be planned and conducted by teachers and experts in assessment, working together;
- requires each board to participate in a board-wide assessment, so that the content and process are consistent throughout the province, and the results comparable from one jurisdiction to another.

Recommendations 53, 54, 55

We recommend that:

**the Ministry continue to be involved in and to support national and international assessments, and work to improve their calibre;*

**the Ministry develop detailed, multi-year plans for large-scale assessments (program reviews, examination monitoring), which establish the data to be collected and the way implementation will be monitored, and report the results publicly, and provide for the interpretation and use of results to educators and to the public;*

**initially, and for a five- to seven-year period, until the process is well-established in the school system and in the public consciousness, an independent accountability agency be charged with implementing and reporting the Grades 3 and 11 universal student assessments. The reports and recommendations of the Office of Learning Assessment and Accountability would go directly to the Minister, the College of Teachers, and the public.*

The other responsibilities of the Office of Learning Assessment and Accountability are detailed in Chapter 19.

Reporting the results of large-scale assessments

While large-scale assessments are complex and expensive, the results they produce, and the wealth of information they contain, must be reported in ways that can be easily understood without being trivialized. The results achieved by Ontario students in international and national assessments have raised public awareness and concern, particularly because they identified some areas that need concerted attention. As we have pointed out, however, the results have sometimes been used – and misused – to rank Ontario in terms of other jurisdictions, but without thoughtful consideration and interpretation of the studies themselves. While not a simple task (it is a major challenge for the future), reporting results understandably and usefully is vital. This is an area in which the media also have serious responsibilities, to inform, not thoughtlessly arouse, the public.

"To ensure that more students graduate, we encourage the use of alternative testing methods to accommodate different learning styles."

Student Council Prime Ministers, London and Middlesex Roman Catholic Secondary Schools

voices

Although the provincial government's main interest is in the overall state of education in Ontario, information about large-scale assessments is more useful to parents and educators when it is available for their particular school and school system; educators are concerned that any potential usefulness is offset by the possible misuse of the information.

Their concerns are not unique: there have been vigorous debates in other jurisdictions, especially where school results are reported as rankings or "league tables," and have been used as simple indicators of the relative quality of schools. Even a cursory look shows that these kinds of comparisons are totally inappropriate and ignore such crucial influences on student achievement as socio-economic family status, parental literacy, facility in the language of use, etc. Merely ranking schools may identify the area in which the most privileged students live, but it does not indicate the degree to which any school has helped its students develop. The fact that a school is apparently successful may be the result of non-school factors, just as the schools in which achievements seem modest may, in fact, be serving students who enter with low performance levels and improve greatly.

The issue of the value added by schools has become very heated, engendering both political and technical problems. Particularly in Britain, where the process has been in place for a while, teachers rightly point out that achievement results are inadequate measures of a school's contribution to student learning, and some have even refused to participate in the national testing program.

The British experience shows clearly that when the purpose of the study is to establish the effectiveness of the school, it must include information about contextual conditions, such as the readiness of students to learn, the nature of instruction, and the resources available. A statistician who has considered this problem in Britain says that:

> [It] is not technically possible with any reasonable certainty to give an unequivocal ranking of schools ... it is important to avoid the trap of supposing that the provision of some information about schools is better than no information. The problem is that such information will be biased and misleading.[35]

The overall complexity of adjusting scores and the overly simplistic approach of publishing raw scores, brings into question the usefulness of ranking schools. Britain's National Commission on Education concluded that a single statistic was not an adequate summary of a school's effect on the progress of students.

This is not intended to suggest that information should not be provided about how schools are doing. But it does highlight the problems of making valid school comparisons on the basis of simple scores and the importance of schools and school boards giving results that include comprehensive information about themselves.

The most appropriate and constructive use of school results for comparative purposes is to look at results in the same school over time. Barring very major changes in neighbourhood demographics (which usually occur only over numbers of decades) the population of a given school is more comparable to itself over time than to that of another school:

For example, checking a student assessment in 1997 with the results of the same assessment at the same school in 1995, offers teachers and the principal an important indicator of progress and quality. When such comparisons are anticipated and planned for, staff have a real incentive to develop targeted school improvement plans, and to compare the next set of results to those plans. Making schools accountable for improving, as opposed to making them accountable for factors beyond their control, gives the promise of really adding value and quality to existing school practices.

> To assess value added – and to gain valid insights into whether your schools are effective – you have to compare tests or other results over a period of time, with the same group of students.[36]

summary

The population of a given school is more comparable to itself over time than to that of another school.

Because they represent the visible products of schools, student assessments and program reviews are key elements in the process of education reform.

Another difficulty related to reporting is that of obtaining results of large-scale assessments broken down according to such sub-groups as gender, ethnicity, socio-economic status, and geographic region. Although this kind of analysis is technically possible if the information is available, detailed demographic data on students is not collected by most school boards. As well, as in the case of reporting results for individual schools, it would be almost impossible to explain differences that might be found among the population groups, unless a great deal of contextual information was added. Without these breakdowns of results, however, educators cannot fulfill their responsibility to monitor equity of outcomes.

Policy makers must accept responsibility for actively communicating with the public about large-scale assessment results, and must work with technical specialists who know the study and can help them interpret the results accurately to the public in many forms and forums. The major challenge is to provide as much information as possible, accurately and succinctly, without oversimplifying the message.

Large-scale assessment rarely provides unequivocal answers, but it does create a context within which different interests – policy makers, professional educators, and parents, among others – can find a basis for informed dialogue. It can provide the foundation for debates about public policy, and identify the general direction for making changes in emphasis or focus. More than anything, policy makers must create a range of action plans for responding directly to the results of the assessments.

We urge that school boards and schools be provided with direction and training (initially by the independent accountability agency) to ensure they are able to report results of provincially directed assessments accurately and clearly, to their respective communities, and that, when they wish to do their own assessments, they be helped to do so, using high-quality tools.

Recommendation 56

**We recommend that the Ministry of Education and Training, in consultation with community members and researchers, develop a specific procedure for collecting and reporting province-wide data on student achievement (marks, and Grade 3 and Grade 11 literacy test results) for groups identified according to gender, race, ethno-cultural background, and socio-economic status.*

Conclusion

Because they represent the visible products of schools, student assessments and program reviews are key elements in the process of education reform. The Commissioners are very conscious of the impact our recommendations will have on curricula, instruction, teachers, administrators, and, most of all, students. As the focus of education moves towards raising the levels of literacies for all our students, we can no longer rely on simply sorting and comparing students. The Commission is saying that, instead, we want clear descriptions of whether students are achieving the complex learning outcomes they will need if they are to succeed in the 21st century.

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Timothy
Leo
Zaks
Spools

Conclusion: What We Have Said about the Learning System

Our vision of curriculum is very broad: it begins with the traditional – and we think very proper – concern that children acquire essential foundation skills; these have always meant literacy and numeracy, have long included scientific thinking, and now, we strongly believe, also include computer literacy and the skills needed to work and learn with and from others.

From the beginning, however, we have talked about more than the traditional curriculum; in fact, we have talked about more than the program of schools. Our discussion and recommendations are directed at understanding and improving the learning system, as an integrated whole, one that stretches beyond school walls, not merely beyond classroom walls.

Traditionally, discussions of curriculum begin with the curriculum of Grade 1; sometimes they include kindergarten. But we look at the learning system as beginning at birth and with children's first teachers: their parents. We hope that throughout these pages, with their many issues and recommendations, people see clearly that we have not deviated from our conviction that parents are the first and most important teachers, and that the influence of parents and schools on learners is intertwined and inextricable.

Many of our recommendations stress the need to increase knowledge and communication in both directions, and to share more information and authority between the two. There are two reasons we want parents to know what children can and should be expected to learn at every age and stage in their development: first, so parents can be effective as educators in their own right; and second, so they can be effective as emissaries and advocates for their children at school.

It is in the child's interest as a learner that parents be very well informed and very powerful. That is why we speak of the need for parents to be told and be aware of what the curriculum is, what the expected learning outcomes are, and what standards of achievement are considered acceptable in foundation subjects.

Our recommendations on building assessment expertise in teachers are also designed to improve both teaching and learning, and to make more information available to parents and the public about what is being taught and learned. The same is true of our recommendations concerning system-wide curriculum reviews, and of our recommendation that a standardized and informative report card (the Ontario Student Achievement Report) be sent to all parents.

We have said that learning begins at birth, so our discussion of the school curriculum begins for children at age 3. We have recommended that full-time schooling be available across Ontario for children of that age. While this would be routine in some countries, it certainly is not in Canada: we are well aware that some people may look on our recommendation for universal early childhood education as an unnecessary or unaffordable luxury – too expensive to provide universally, if at all.

Having reviewed the evidence of the effectiveness of such programs, we are convinced, however, that Ontario cannot afford not to have them. Our children are in school longer than most others; we spend significant sums of money on remedial and special education programs. Yet, in spite of these programs and expenditures, the overall achievment level of our students is not outstanding. And while many, many children receive an excellent public education in Ontario, there are still some hard truths to be faced: only a minority achieve what can be called high-level literacy; a large minority don't make it through high school; and, within some disadvantaged groups, that minority comes perilously close to, or even reaches, majority status.

We want what we believe most people in Ontario want: more children to be better educated, and the irreplacable asset of an excellent education to be owned equally by all our children. Excellent early childhood education is one big step toward achieving those goals. There are any number of reasons why that is so, but a central one is that, from infancy, children are acquiring ideas about cause and effect, about comparison and contrast, about quantity – in short, about the most fundamental building blocks of thinking and learning; by the time they are three years old, knowledgeable, skilled, and caring teachers can make a real difference for them.

Beginning school earlier gives children advantages. But those can be lost if the emphasis on teaching and monitoring the acquisition of foundation skills, especially language skills, is not maintained throughout elementary and secondary education – and most especially during the first three years of compulsory schooling.

We have taken the position that almost all children should have mastered the basic literacy skills before the end of Grade 3, and we have recommended a universal literacy test (as well as a numeracy test) at that point, on the understanding that significant steps will have been taken one or two years earlier to help children who are having problems.

While we know that many children will continue to need support throughout the common curriculum years, and that some individual learning difficulties require on-going special attention, we have no doubt that early education and early help will prevent an enormous amount of frustration and suffering. It is the first essential step the system can take toward creating a better-educated populace.

We stress continuity. Children pass through teacher after teacher, class after class, and school after school, from their early years until they leave secondary school. Yes, interests and aptitudes grow and change, but the singularity and consistency of the person is always apparent.

It is very difficult for teachers or schools to have such a comprehensive view of a student, but we argue that unless schools can do better than they do now, students' education will remain too fragmented and too discontinuous, with consequences for the individual and the system – at the least, very wasteful of talent and fulfillment, and, at worst, truly destructive.

To improve continuity for students, we have recommended that beginning at the start of their compulsory schooling in Grade 1, there be one person at the child's school who is responsible for knowing the child and the child's record, so that as year succeeds year, and teacher succeeds teacher, there is someone who is aware of whether that child is progressing at a normal rate, who makes certain that the new teacher has a good idea of what the child's strengths and needs are, and who can speak to the parents as an informed and concerned representative of the school. And, at the point where schools become more specialized and children have several different subject teachers, and teachers have far more students than they can know well individually, we have recommended that this case-management function become much more personal and hands-on, and that all students have a teacher-advisor or the like, someone who not only remains aware of their overall progress, but who actually meets with them often, and with their parents at least twice annually, and who assists them with educational and career planning in an informed but informal way.

The tool that we recommend as both a facilitator and a record of this process is the Cumulative Educational Plan (CEP), which is a comprehensive planning tool for the student. We say comprehensive because, as we stated earlier, we do not believe that it is helpful for schools to ignore what students are learning and developing an interest in outside of school. We have made much of the importance of what we call community-based career awareness, by which we mean that the whole community is a child's school, and that schools must act accordingly. The curriculum must take students out of the classroom, by foot and by computer; and the school must insist that the resources of the community

As soon as one considers the curriculum to be more than what is taught in classrooms, one begins to appreciate the advantages, as well as the necessity, of greater flexibility in the learning system.

become the resources of the learning system for students. Thus we build in a community career co-ordinator for the younger grades, and a career education specialist for the older ones, and put considerable emphasis on the continuity of career education from beginning to end.

And we expect the CEP to include information on what the student is learning in the community that has implications for her school program and for her future. A concrete example is international languages, where community resources often exceed school resources: many children develop fluency and literacy in international languages outside of school. We strongly suggest that such knowledge become part of their record, and that they be encouraged to put their knowledge to a test, when they reach Grade 10, and receive both advanced placement and credits toward their diploma for that knowledge. We see this kind of encouragement of learning, wherever it happens, as enriching the community as well as the individual.

As soon as one considers the curriculum to be more than what is taught in classrooms, one begins to appreciate the advantages, as well as the necessity, of greater flexibility in the learning system. At the school level, we suggest that 10 percent of the curriculum be available for local definition; that the common curriculum occupy at least 90 percent of the learning agenda from Grades 1 though 9. Depending on the physical environment and geography of the school and community, and/or on its social environment and human geography, a school (its teachers, its parents, its community helpers) may decide to put a special focus on an environmental study project, on a social history project, or on some other worthwhile endeavour that can enhance students' knowledge and skills, and perhaps also benefit the larger community.

At the individual level, flexibility in what is learned, and at what pace, has always been necessary, just as individual variation has always been inevitable. But it has been difficult for schools to provide the necessary flexibility, for many reasons. It will continue to be so: any system that tries to provide for everyone will have difficulty in providing for those who are farthest from the average. However, we firmly believe it is possible to do better, and extremely important to try. Hence we draw attention to a few schools that have made real efforts to diminish the lock-step nature of learning by allowing students to use the whole 12-month calendar or more, or much less, rather than insisting that learning comes in packages of 10 months only. And we have recommended more use of all the techniques that make it easier for students to learn at the pace right for them: acceleration for students who can move faster, individual learning assessment (challenge exams and prior learning assessment), and intensive, accelerated, and immediate catch-up courses for students from the elementary years through adulthood. We know this is an area that requires greater skill and will from educators, and we have urged the Minister of Education and Training to provide leadership and support for those who are willing to work at developing models and strategies to increase flexibility for learners.

There is another kind of flexibility we are committed to as well, and we hope our readers are aware of it, though it is perhaps written between our lines as much as within them. That is the flexibility we believe is the best way to encourage responsibility and creativity. Our recommendations stress clarity about ends, not means. Thus, we think teachers and parents must have clarity about intended learning outcomes and standards; and about the essential components of a course, whether it is Grade 7 math or Grade 11 geography.

As well, we think the principles we have emphasized – continuity, stewardship, flexibility for learners, learning without walls – are tremendously important everywhere. But we also believe there are as many ways of teaching an excellent Grade 7 math or Grade 11 art course as there are excellent math and art teachers; and as many ways of building strong relationships between students, teachers, parents, and the community on behalf of learning as there are caring and committed professionals and parents. We do believe that

much good can be achieved by offering people – teachers, parents, volunteers – training, and the opportunity to work together to come up with their own strategies for supporting those principles, in ways that will work in their schools and their communties.

The same principles that we have developed and discussed in talking about younger learners apply to older ones as well. Older students also need well-informed parents who are on comfortable terms with their teachers; students continue to need a teacher who knows them and acts on their behalf; and they continue to need flexibility in learning time. But, in addition, as our children pass beyond the age of the common curriculum, when all of them are meant to be acquiring that bank of knowledge and essential thinking and learning skills that every one of them needs, they must be given opportunities for making choices based on what they have learned about themselves and the world. By the time a young person reaches Grade 10 in the learning system we have envisioned, she is ready to make some decisions – not irreversible, by any means, but very important nonetheless – about what direction she wants to take, not only in secondary school, but afterward. This has traditionally been the case; secondary education has always meant the point at which options increase and alternative paths open up.

But an abiding concern, in the last 50 years at least, has been how to increase options and open up paths in a way that is inclusive, and doesn't leave out those students who come to school with fewer advantages, less "social capital" in the form of parents with higher education, more money, and the like. In our opinion, differences in interest and aptitude, which is what program options should accommodate, have become confused with differences in social class and social rewards. Hence, we have a secondary system organized by "levels," which come to be thought of as reflecting the inherent and unalterable ability levels of individual students, but which in fact reflect best such other factors as parents' occupations, education, and income levels, and sometimes also race or home language or national origin.

Our concern in making recommendations to reform and improve education beyond the years of the common curriculum is to continue to strengthen core knowledge and skill areas for all students, while at the same time making alternative paths as clear and as open to everyone as is possible. So, for example, we redefine the courses that are offered as falling into three kinds, which do not in our mind speak of greater or lesser ability, but of different degrees of emphasis along a continuum between applied and academic. We make the point that it is courses, not students, that fall into one or another of these three categories. Thus, in Grade 10, a student might choose a science course that emphasizes practical applications (an Ontario Applied Course, or OApC); a history course that puts more emphasis on a traditional academic approach (an Ontario Academic Course, or OAcC); and a music course that attempts to maintain an even balance between applied and academic emphasis (a common course). Such a student may be one who thinks of going on to a technical course at a college but who has a strong avocational interest in history, or one who wants to study social sciences at a university and also wants to have an intelligent layperson's understanding of basic science.

While we are aware that no plan, however flexible, can overcome social preferences, prejudices, and rewards that favour academic over applied skills, and university over college education, we do believe that it is plausible that a system such as we suggest could increase students' options, and result in a better match between interest and talent on the one hand and useful post-secondary education on the other.

For this to happen, colleges and universities must co-operate with secondary educators to redefine entrance requirements. The object would be to define these in both a clearer and a more differentiated way than at present. Now, universities, for the most part, look at students' marks in their last year only, and insist on prerequisite courses defined as pre-university in all those six final OACs. While this is

We call for a universal literacy test to be given first in Grade 11, and to be passed eventually before a student can receive a diploma.

clear enough, it is very undifferentiated; a student who wants to study history must take the same science course as a peer who wants to be a chemist, or else take no science course at all. Colleges, for their part, have no such blanket rule; but while they show greater flexibility, the paths to college are very confused and unclear for students, except in cases where individual colleges and secondary schools have worked out specific articulation programs.

We have recommended that schools, colleges, and universities define "packages" of courses that lead to particular college and university programs, and that these packages include the appropriate OApCs, OAcCs, and common courses for each post-secondary program.

We have also recommended that schools organize themselves into relatively small units, and that these units (which will most often be small schools within large buildings, sharing administrators and some facilities and courses) might have a subject or career focus, such as is now available in a few cities in schools that have an arts academy or a science academy. In such "academies," students who are interested in a career in art history or arts administration, in engineering or in electronics, can find a curriculum that has a clear relationship to their interests and – if course packages have been defined collaboratively as we suggest – to their future.

As much as we want adolescents and young adults to feel the connection between their formal education and their future – and we strongly endorse such out-of-school learning experiences as co-operative education and community service, both as emphases within courses and as experiences in themselves – we are also concerned that there are commonalities in education and learning that must not be lost sight of. All students want to understand the practical applications of what they are learning; similarly, all students need a high level of literacy no matter what career interest they may pursue.

Our recommendations concerning the common needs of secondary students speak of the necessity for certain outcomes as prerequisite to graduation. Thus, we suggest that there must be specified learner outcomes at the end of Grade 12, just as there are for the lower grades; and that these outcomes must include a majority that are common to all learners, as well as some that are specific to courses offered as OApCs or OAcCs. And we recommend an increase in the amount of province-wide curriculum and examination review at this level, as well as earlier, so that educators and the public can know how successfully the curriculum is being learned, and so that some consistency is guaranteed across teachers and schools.

We also call for a more efficient system at this level, one that does not encourage students to extend their stay in secondary school by a year or two beyond what is necessary to take the required number of courses and graduate. While we make it clear that we continue to support flexibility in learning time, and have no intention of making matters more difficult for students who need longer to complete their course of study for legitimate reasons connected to how they learn, or to other circumstances in their life, we do not wish to see the majority of students take longer than three years, beginning in Grade 10, to complete their diploma. No other province keeps most of its students in secondary school so long, and there is no clear advantage to doing so, but considerable expenditure that we believe is better spent early than late. Hence we make recommendations designed to limit the number of credits students may accumulate before they graduate.

As well, we call for a universal literacy test to be given first in Grade 11, and to be passed eventually before a student can receive a diploma. The emphasis that we have put on literacy, beginning at age 3, culminates here in a literacy guarantee: what we believe should be a promise to the public that any high school graduate in Ontario can read and understand, and can write and convey information and feeling, as an educated adult should be able to do.

Consistent with our emphasis on continuity of concern for students' progress, we suggest that secondary schools

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maintain contact with and support for students until they are 18 years old, whether or not they remain in school to finish their diploma. Students need help with the transition to work, not only to post-secondary education, and until they are 18, school should be there for them, just as it is for their peers who are going on with their education.

And just as we began our discussion of the formal learning system before age 6, we do not end it at age 18. The increasing number of adults wanting to complete their secondary education deserve the same opportunity as younger learners, and we recommend that space be guaranteed them in the public system. As well, we strongly recommend that the literacy guarantee that we want our school system to make be also a literacy promise for adults who, for whatever reasons, wish to become fluent and literate in either of the official languages. Those adults include, after all, parents and future parents, grandparents and future grandparents, whose literacy is perhaps the most significant part of the learning legacy they pass on to their children and grandchildren.

Volume II Recommendations

These are the collected recommendations of Volume II. The recommendations of the entire report are given in Volume IV.

Chapter 7: The Learner from Birth to Age 6

The Commission recommends:

1. That Early Childhood Education (ECE) be provided by all school boards to all children from three to five years of age whose parents/guardians choose to enrol them. ECE would gradually replace existing junior and senior kindergarten programs, and become a part of the public education system;

2. That the ECE program be phased in as space becomes available;

3. That, in the implementation of ECE, the provincial government give priority funding to French-language school units;

4. That the Ministry of Education and Training develop a guide, suitable for parents, teachers, and other caregivers, outlining stages of learning (and desirable and expectable learner outcomes) from birth onwards, and that it link to the common core curriculum, beginning in Grade 1. This guide, which would include specific learner outcomes at age 6, would be used in developing the curriculum for the Early Childhood Education program.

Chapter 8: The Learner from Age 6 to 15

The Commission recommends:

5. That learner outcomes in language, mathematics, science, computer literacy, and group learning/interpersonal skills and values be clearly described by the Ministry of Education and Training from pre-Grade 1 through the completion of secondary school, and that these be linked with the work of the College Standards and Accreditation Council, as well as universities; and that clearly written standards, similar in intent to those available in mathematics and language (numeracy and literacy), also be developed in the other three areas;

6. That the acquisition of a third language become an intrinsic part of the common curriculum from a young age up to Grade 9 inclusively, with the understanding that the choice of language(s) taught or acquired will be determined locally, and that the acquisition of such a third language outside schools will be recognized as equivalent by an examination process, similar to what we term challenge exams within the secondary school credit system;

7. That all elementary schools integrate a daily period of regular physical exercise of no less than 30 minutes of continuous activity as an essential part of a healthy school environment. Schools that have problems scheduling daily periods should, as a minimum, require three exercise periods per week;

8. That, at the Grade 1–5/6 level, an educator monitor a student's progress during the years the student is at the school, and be assigned responsibility for maintaining that student's record;

9. That the Ministry of Education and Training and the local boards of education provide incentives to large middle (and secondary) schools to create smaller learning units, such as schools-within-schools or houses;

10. That, beginning in Grade 7, every student have a Cumulative Education Plan, which includes the student's academic

and other learning experiences, is understood to be the major planning tool for the student's secondary and post-secondary education, and is reviewed semi-annually by the student, parents, and by the teacher who has a continuing relationship with and responsibility for that student as long as she or he remains in the school;

11. That curriculum guidelines be developed in each subject taught within the common curriculum, to assist teachers in designing programs that will help students achieve the learning outcomes in *The Common Curriculum.* These guidelines should include concrete suggestions on how teachers can share with parents ways to help their children at home;

12. That the Minister of Education and Training amend the regulations to enable school boards to extend the length of the school day and/or school year;

13. That the Ministry of Education and Training work with curriculum and learning specialists to develop strategies (based on sound theory and practice and enriched with detailed examples) for providing more flexibility in the amount of time available to students for mastering curriculum;

14. That local schools and boards be allowed to develop and offer programs in addition to those in *The Common Curriculum,* as long as those options meet provincially developed criteria, and as long as at least 90 percent of instructional time is devoted to the common curriculum for Grades 1 to 9.

Chapter 9: The Learner from Age 15 to 18

The Commission recommends:

15. That the Ministry of Education and Training review community college education – its mandate, funding, coherence, and how it fits into the system of education in Ontario, including clarification of access routes from secondary school to college, and with special attention being paid to students who are not university-bound;

16. That secondary school be defined as a three-year program, beginning after Grade 9, and that students be permitted to take a maximum of three courses beyond the required 21, for a total of not more than 24 credits. We further recommend that all courses in which the student has enrolled – whether completed or incomplete, passed or failed – be recorded on that student's transcript;

17. That only two, not three, differentiated types of courses should exist;

18. That some courses, (to be called Ontario Academic Courses, or OAcCs) be offered with an academic emphasis; that others (to be called Ontario Applied Courses, or OApCs) be offered, with an emphasis on application; and that still others be presented as common courses, blending academic and applied approaches, and with no special designation;

19. That large secondary schools be reorganized into "schools-within-schools" or "houses," in which students have a core of teachers and peers with whom they interact for a substantial part of their program.Such units may be topic-, discipline-, or interest-focused;

20. That as a mandatory diploma requirement all students participate each year in physical exercise at least three times per week, for not less than 30 minutes per session, either in or outside physical education classes;

21. That as a mandatory diploma requirement all students take part in a minimum of 20 hours per year (two hours per month) of community service, facilitated and monitored by the school, to take place outside or inside the school;

22. That the same efforts to centrally develop strategies and ideas for increasing flexibility and individualization of the pace of learning, which we called for in the common core curriculum, be applied to the specialization years;

23. That a set of graduation outcomes be developed for the end of Grade 12; that they be subject and skill oriented, as well as relatively brief; and that they cover common learner outcomes for all students as well as supplemental learner outcomes for the OAcC and the OApC programs;

24. That students have the option of receiving as many as two international language credits toward their diploma no matter where they obtained their training or knowledge of the language(s) if, upon examination, they demonstrate appropriate levels of language mastery;

25. That the Ontario Training and Adjustment Board (OTAB) be given the mandate to take leadership, working in partnership with school boards, community colleges, and other community partners, to establish programs that will assist secondary school graduates and drop-outs to transfer successfully to the workforce, including increasing opportunities for apprenticeship and for other kinds of training as well as employment counselling;

26. That the Ministry of Education and Training create a brief and clear document that describes for parents what their children are expected to learn and to know, based on the developmental framework of stages of learning from birth to school entrance, *The Common Curriculum,* and the secondary school graduation outcomes. Succinct information on college and university programs should be also included;

27. That, in order to ensure that all Ontario residents, regardless of age, have access to a secondary school diploma, publicly funded school boards be given the mandate and the funds to provide adult educational programs;

28. That a consistent process of prior learning assessment be developed for adult students in Ontario, and that this process include an examination for a secondary school equivalency diploma;

29. That the Ministry of Education and Training, with its mandate which includes post-secondary education, require the development of challenge exams and other appropriate forms of prior learning assessment by colleges and universities, to be used up to and including the granting of diplomas and degrees;

30. That the right of adults to pursue literacy education must be protected, regardless of employment status or intentions;

31. That COFAM/OTAB immediately define and set aside, for short- and medium-term adult literacy programs, a francophone allotment that is not linked to participation in the workforce, in addition to the francophone programs linked to workforce status and intention.

Chapter 10: Supports for Learning: Special Needs and Special Opportunities

The Commission recommends:

32. That the Ministry make it mandatory for English-language school units to provide ESL/ESD, and French-language school units to provide ALF/PDF, to ensure that immigrant students with limited or no fluency in English or French, and Charter rights holders with limited or no fluency in French, receive the support they require, using locally chosen models of delivery. In its block-funding grants, the Ministry should include the budgetary supplements required to allow the schools to offer these programs wherever the community identifies a need for them.

33. That no child who shows difficulty or who lags behind peers in learning to read be labelled "learning disabled" unless and until he or she has received intensive individual assistance in learning to read, which has not resulted in improved academic performance;

34. That in addition to gifted programs, acceleration, based on teacher assessment, challenge exams, and/or other appropriate measures, become widely available as an important option for students;

35. That when parents and educators agree on the best programming for the student, and there is a written record of a parent's informed agreement, no Identification, Placement, and Review Committee (IPRC) process occur;

36. That when there is no agreement, and an IPRC meeting must take place, a mediator/facilitator be chosen, on an ad hoc basis, to facilitate discussion and compromise, to alleviate the likelihood of a legal appeal; and that the legislation be rewritten to provide for this pre-appeal mediation;

37. That when a student has been formally identified and placed, the annual review be replaced by semi-annual individual assessment that will show whether and how much the student has progressed over a five-month period, and decisions about continuation of the program be made based on objective evidence as well on as the judgment of the educators and parents in regard to the student's progress;

38. That school boards look for ways to provide assistance to those who need it, without tying that assistance to a formal identification process.

39. That, while integration should be the norm, school boards continue to provide a continuum of services for students whose needs would, in the opinion of parents and educators, be best served in other settings;

40. That all elementary school teachers have regular access to a "community career co-ordinator" responsible for co-ordinating the school's community-based, career-awareness curriculum, and working with teachers and community members to build and support the program;

41. That, beginning in Grade 6 or 7 and continuing through Grade 12, all schools have appropriately trained and certified career-education specialists to carry out career counselling functions;

42. That the Ministry, in co-operation with professional career-education groups, the Ontario School Counsellors' Association, and the Association of Career Centres in Educational Settings, and with representation from colleges, universities, and business and labour, develop a continuum of appropriate learner outcomes in career awareness and career education for Grades 1–12;

43. That the Ministry of Education and Training take the lead in working with the Ministry of Health to develop a definition of essential mental-health promotion programs and services that should be available in the school setting; the professional training necessary to provide them; the services that should be offered to students outside the schools and by whom; and the way responsibility for providing these services is shared across ministries;

44. That the Ministry of Education and Training clarify the nature and function of personal and social guidance counselling in schools by:

a) redefining the appropriate training required for a guidance or personal counsellor, and creating and implementing a plan for educating and re-educating those people who are now, or should now be, delivering these services to students; this redefinition should be done in co-operation with the Ontario School Counsellors' Association and representatives of colleges and universities; such training should also be accessible through avenues other than teacher education;

b) ensuring that delivery of these services be implemented by personnel who, after a date to be specified, have received the agreed-on training;

45. That the Ministry of Education and Training develop a new guideline for social/personal guidance to replace *Guidance, Intermediate and Senior Divisions, 1984,* including a description of the kind of differentiated staffing needed to deliver guidance and counselling services in schools, both elementary and secondary.

Chapter 11: Evaluating Achievement

The Commission recommends:

46. That significantly more time in pre-service and continuing professional development be devoted to training teachers to assess student learning in a way that will help students improve their performance, and we recommend supervised practice and guidance as the principal teaching/learning mechanism for doing so;

47. That the Ministry of Education and Training begin immediately to develop resource materials that help teachers learn to assess student work accurately and consistently, on the specific learner outcomes upon which standardized assessment and reporting will be based;

48. That the Ministry of Education and Training, in conjunction with professional educators, assessment experts, parents, students, and members of the general public, design a common report card appropriate for each grade. To be known as the Ontario Student Achievement Report, it would relate directly to the outcomes and standards of the given year or course and, in all years, would be used as the main vehicle for communicating, to parents and students, information about the student's achievements. While school boards would not be permitted to delete any part of the OSAR, they could seek permission from the Ministry to add to it;

49. That the Ministry monitor its own assessment instruments for possible bias, and work with boards and professional bodies to monitor other assessment instruments; that teachers be offered more knowledge and training in detect-

ing and eradicating bias in all aspects of assessment; and that the Ministry monitor the effects of assessment on various groups;

50. That all students be given two uniform assessments at the end of Grade 3, one in literacy and one in numeracy, based on specific learner outcomes and standards that are well known to teachers, parents, and to students themselves;

51. That the construction, administration, scoring, and reporting of the two assessments be the responsibility of a small agency, independent of the Ministry of Education and Training, and operating at a very senior level, to be called the Office of Learning Assessment and Accountability;

52. That a literacy test be given to students, which they must pass before receiving their secondary school diploma;

53. That the Ministry continue to be involved in and to support national and international assessments, and work to improve their calibre;

54. That the Ministry develop detailed, multi-year plans for large-scale assessments (program reviews, examination monitoring), which establish the data to be collected and the way implementation will be monitored, and report the results publicly, and provide for the interpretation and use of results to educators and to the public;

55. That, initially, and for a five- to seven-year period, until the process is well established in the school system and in the public consciousness, an independent accountability agency be charged with implementing and reporting the Grades 3 and 11 universal student assessments. The reports and recommendations of the Office of Learning Assessment and Accountability would go directly to the Minister and the public;

56. That the Ministry of Education and Training, in consultation with community members and researchers, develop a specific procedure for collecting and reporting province-wide data on student achievement (marks, and Grade 3 and Grade 11 literacy test results) for groups identified according to gender, race, ethno-cultural background, and socio-economic status.

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